

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/17/19 09:13
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04 Batch: WG1198696-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

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**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/17/19 09:13
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04 Batch: WG1198696-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04 Batch: WG1198696-3 WG1198696-4								
Methylene chloride	92		91		70-130	1		20
1,1-Dichloroethane	96		98		70-130	2		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	90		93		63-132	3		20
1,2-Dichloropropane	96		100		70-130	4		20
Dibromochloromethane	99		100		63-130	1		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	95		98		70-130	3		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	72		75		62-150	4		20
1,2-Dichloroethane	95		100		70-130	5		20
1,1,1-Trichloroethane	94		95		67-130	1		20
Bromodichloromethane	96		98		67-130	2		20
trans-1,3-Dichloropropene	99		100		70-130	1		20
cis-1,3-Dichloropropene	93		97		70-130	4		20
1,1-Dichloropropene	89		92		70-130	3		20
Bromoform	99		100		54-136	1		20
1,1,2,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	91		94		70-130	3		20
Toluene	100		100		70-130	0		20
Ethylbenzene	99		100		70-130	1		20
Chloromethane	54	Q	55	Q	64-130	2		20
Bromomethane	43		29	Q	39-139	39	Q	20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04 Batch: WG1198696-3 WG1198696-4								
Vinyl chloride	75		75		55-140	0		20
Chloroethane	100		100		55-138	0		20
1,1-Dichloroethene	78		80		61-145	3		20
trans-1,2-Dichloroethene	90		94		70-130	4		20
Trichloroethene	93		96		70-130	3		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	93		100		63-130	7		20
p/m-Xylene	100		105		70-130	5		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	95		97		70-130	2		20
Dibromomethane	94		98		70-130	4		20
1,2,3-Trichloropropane	100		110		64-130	10		20
Acrylonitrile	92		100		70-130	8		20
Styrene	90		95		70-130	5		20
Dichlorodifluoromethane	56		57		36-147	2		20
Acetone	83		75		58-148	10		20
Carbon disulfide	81		82		51-130	1		20
2-Butanone	93		98		63-138	5		20
Vinyl acetate	110		110		70-130	0		20
4-Methyl-2-pentanone	88		110		59-130	22	Q	20
2-Hexanone	80		96		57-130	18		20

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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04 Batch: WG1198696-3 WG1198696-4								
Bromochloromethane	99		100		70-130	1		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	96		100		70-130	4		20
1,3-Dichloropropane	100		110		70-130	10		20
1,1,1,2-Tetrachloroethane	100		110		64-130	10		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	98		100		53-136	2		20
sec-Butylbenzene	99		100		70-130	1		20
tert-Butylbenzene	97		98		70-130	1		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	88		100		41-144	13		20
Hexachlorobutadiene	80		80		63-130	0		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	96		97		70-130	1		20
Naphthalene	84		93		70-130	10		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	86		91		70-130	6		20
1,2,4-Trichlorobenzene	88		89		70-130	1		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	100		100		56-162	0		20
p-Diethylbenzene	93		95		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

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Lab Number: L1901689

Report Date: 01/21/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04 Batch: WG1198696-3 WG1198696-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	88		89		70-130	1		20
Ethyl ether	86		91		59-134	6		20
trans-1,4-Dichloro-2-butene	96		100		70-130	4		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	97		99		70-130
Toluene-d8	101		102		70-130
4-Bromofluorobenzene	96		93		70-130
Dibromofluoromethane	99		97		70-130

SEMIVOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-01
 Client ID: RMW18_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 14:27
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/18/19 14:59
 Analyst: JG

Extraction Method: EPA 3510C
 Extraction Date: 01/15/19 16:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	2.8	J	ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-01
 Client ID: RMW18_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 14:27
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		21-120
Phenol-d6	48		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	92		10-120
4-Terphenyl-d14	65		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-01
 Client ID: RMW18_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 14:27
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/18/19 19:03
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 01/15/19 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.03	J	ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.10	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.08	J	ug/l	0.10	0.05	1
Benzo(a)anthracene	0.05	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	0.02	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.03	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.01	J	ug/l	0.10	0.01	1
Chrysene	0.03	J	ug/l	0.10	0.01	1
Acenaphthylene	0.09	J	ug/l	0.10	0.01	1
Anthracene	0.08	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.02	J	ug/l	0.10	0.01	1
Fluorene	0.07	J	ug/l	0.10	0.01	1
Phenanthrene	0.26		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.02	J	ug/l	0.10	0.01	1
Pyrene	0.16		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.08	J	ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901689**Project Number:** 170487001**Report Date:** 01/21/19**SAMPLE RESULTS**

Lab ID: L1901689-01

Date Collected: 01/14/19 14:27

Client ID: RMW18_011419

Date Received: 01/14/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	47		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	68		15-120
2,4,6-Tribromophenol	77		10-120
4-Terphenyl-d14	66		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-02
 Client ID: RMW22_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 12:22
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/18/19 15:54
 Analyst: JG

Extraction Method: EPA 3510C
 Extraction Date: 01/15/19 16:14

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	2.9	J	ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-02
 Client ID: RMW22_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 12:22
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	73		15-120
2,4,6-Tribromophenol	60		10-120
4-Terphenyl-d14	63		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-02
 Client ID: RMW22_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 12:22
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/16/19 16:43
 Analyst: PS

Extraction Method: EPA 3510C
 Extraction Date: 01/15/19 18:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	147	33.2	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			20		15-110	

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-02
 Client ID: RMW22_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 12:22
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/18/19 19:26
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 01/15/19 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.11		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.09	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.22		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.08	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	0.19		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.27		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.11		ug/l	0.10	0.01	1
Chrysene	0.06	J	ug/l	0.10	0.01	1
Acenaphthylene	0.11		ug/l	0.10	0.01	1
Anthracene	0.05	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.33		ug/l	0.10	0.01	1
Fluorene	0.09	J	ug/l	0.10	0.01	1
Phenanthrene	0.13		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.09	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.31		ug/l	0.10	0.01	1
Pyrene	0.10	J	ug/l	0.10	0.02	1
2-Methylnaphthalene	0.06	J	ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901689**Project Number:** 170487001**Report Date:** 01/21/19**SAMPLE RESULTS**

Lab ID: L1901689-02
 Client ID: RMW22_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 12:22
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	45		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	68		15-120
2,4,6-Tribromophenol	50		10-120
4-Terphenyl-d14	68		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-02
Client ID: RMW22_011419
Sample Location: BRONX, NY

Date Collected: 01/14/19 12:22
Date Received: 01/14/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 01/20/19 02:43
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 01/17/19 09:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	2.42		ng/l	1.80	0.336	1
Perfluoropentanoic Acid (PFPeA)	2.34		ng/l	1.80	0.417	1
Perfluorobutanesulfonic Acid (PFBS)	0.773	J	ng/l	1.80	0.342	1
Perfluorohexanoic Acid (PFHxA)	1.53	J	ng/l	1.80	0.442	1
Perfluoroheptanoic Acid (PFHpA)	0.982	J	ng/l	1.80	0.334	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.80	0.392	1
Perfluorooctanoic Acid (PFOA)	3.02		ng/l	1.80	0.414	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	0.914	J	ng/l	1.80	0.174	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.80	0.468	1
Perfluorononanoic Acid (PFNA)	0.680	J	ng/l	1.80	0.392	1
Perfluorooctanesulfonic Acid (PFOS)	5.47		ng/l	1.80	0.504	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.80	0.558	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.80	0.262	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.80	0.225	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.80	0.381	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.80	0.347	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.80	0.500	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	1.70	J	ng/l	1.80	0.335	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.80	0.532	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.80	0.282	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.80	0.888	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-02
 Client ID: RMW22_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 12:22
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	69		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	83		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	97		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	59		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	74		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	104		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	84		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	162		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	102		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	103		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	103		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	89		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	10		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	92		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	76		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	116		33-143

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-03
 Client ID: GWFB01_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 13:00
 Date Received: 01/14/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/16/19 17:09
 Analyst: PS

Extraction Method: EPA 3510C
 Extraction Date: 01/15/19 18:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	147	33.2	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			27		15-110	

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-03
Client ID: GWFB01_011419
Sample Location: BRONX, NY

Date Collected: 01/14/19 13:00
Date Received: 01/14/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 01/20/19 00:31
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 01/17/19 09:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.77	0.330	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.77	0.410	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.77	0.336	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.77	0.435	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.77	0.329	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.77	0.385	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.77	0.406	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.05	J	ng/l	1.77	0.171	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.77	0.459	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.77	0.385	1
Perfluorooctanesulfonic Acid (PFOS)	0.972	J	ng/l	1.77	0.495	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.77	0.548	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.77	0.257	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.77	0.221	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.77	0.374	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.77	0.341	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.77	0.491	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.77	0.329	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.77	0.523	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.77	0.277	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.77	0.873	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-03
 Client ID: GWFB01_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 13:00
 Date Received: 01/14/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	112		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	127		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	108		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	96		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	104		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	115		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	112		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	102		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	124		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	120		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	106		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	86		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	107		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	125		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	35		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	87		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	107		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	155	Q	33-143

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/15/19 09:45
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 01/14/19 18:45

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1197576-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/15/19 09:45
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 01/14/19 18:45

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1197576-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 01/15/19 09:45
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 01/14/19 18:45

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1197576-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		21-120
Phenol-d6	47		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	78		15-120
2,4,6-Tribromophenol	67		10-120
4-Terphenyl-d14	75		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 01/15/19 11:22
Analyst: CB

Extraction Method: EPA 3510C
Extraction Date: 01/14/19 18:46

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1197577-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
 Analytical Date: 01/15/19 11:22
 Analyst: CB

Extraction Method: EPA 3510C
 Extraction Date: 01/14/19 18:46

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG1197577-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	40		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	91		10-120
4-Terphenyl-d14	86		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 01/16/19 14:05
Analyst: PS

Extraction Method: EPA 3510C
Extraction Date: 01/15/19 18:30

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 02-03 Batch: WG1197902-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	18		15-110

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 01/19/19 20:56
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 01/17/19 09:20

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 02-03 Batch: WG1198461-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.373
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.464
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.380
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.492
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.372
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.436
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.460
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.28	J	ng/l	2.00	0.194
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.520
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.436
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.560
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.620
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	0.291
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.250
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.424
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.386
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.556
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.373
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.592
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.314
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.988

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 122,537(M)
Analytical Date: 01/19/19 20:56
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 01/17/19 09:20

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 02-03 Batch: WG1198461-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	115		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	123		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	124		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	100		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	110		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	119		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	111		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	96		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	117		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	108		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	99		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	95		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	113		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	136		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	42		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	118		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	112		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	134		33-143

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1197576-2 WG1197576-3								
Acenaphthene	60		72		37-111	18		30
1,2,4-Trichlorobenzene	65		85		39-98	27		30
Hexachlorobenzene	61		73		40-140	18		30
Bis(2-chloroethyl)ether	61		74		40-140	19		30
2-Chloronaphthalene	67		77		40-140	14		30
1,2-Dichlorobenzene	67		72		40-140	7		30
1,3-Dichlorobenzene	61		71		40-140	15		30
1,4-Dichlorobenzene	61		71		36-97	15		30
3,3'-Dichlorobenzidine	66		72		40-140	9		30
2,4-Dinitrotoluene	63		77		48-143	20		30
2,6-Dinitrotoluene	70		87		40-140	22		30
Fluoranthene	68		80		40-140	16		30
4-Chlorophenyl phenyl ether	65		76		40-140	16		30
4-Bromophenyl phenyl ether	64		77		40-140	18		30
Bis(2-chloroisopropyl)ether	70		76		40-140	8		30
Bis(2-chloroethoxy)methane	71		90		40-140	24		30
Hexachlorobutadiene	59		68		40-140	14		30
Hexachlorocyclopentadiene	49		67		40-140	31	Q	30
Hexachloroethane	65		74		40-140	13		30
Isophorone	74		87		40-140	16		30
Naphthalene	65		74		40-140	13		30
Nitrobenzene	68		80		40-140	16		30
NDPA/DPA	70		78		40-140	11		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1197576-2 WG1197576-3								
n-Nitrosodi-n-propylamine	76		88		29-132	15		30
Bis(2-ethylhexyl)phthalate	69		78		40-140	12		30
Butyl benzyl phthalate	72		89		40-140	21		30
Di-n-butylphthalate	66		76		40-140	14		30
Di-n-octylphthalate	77		85		40-140	10		30
Diethyl phthalate	69		79		40-140	14		30
Dimethyl phthalate	74		88		40-140	17		30
Benzo(a)anthracene	70		82		40-140	16		30
Benzo(a)pyrene	86		95		40-140	10		30
Benzo(b)fluoranthene	83		102		40-140	21		30
Benzo(k)fluoranthene	84		92		40-140	9		30
Chrysene	67		81		40-140	19		30
Acenaphthylene	69		82		45-123	17		30
Anthracene	67		80		40-140	18		30
Benzo(ghi)perylene	67		81		40-140	19		30
Fluorene	65		75		40-140	14		30
Phenanthrene	64		76		40-140	17		30
Dibenzo(a,h)anthracene	65		82		40-140	23		30
Indeno(1,2,3-cd)pyrene	63		73		40-140	15		30
Pyrene	59		78		26-127	28		30
Biphenyl	64		73		40-140	13		30
4-Chloroaniline	63		66		40-140	5		30
2-Nitroaniline	60		80		52-143	29		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1197576-2 WG1197576-3								
3-Nitroaniline	66		75		25-145	13		30
4-Nitroaniline	66		76		51-143	14		30
Dibenzofuran	62		72		40-140	15		30
2-Methylnaphthalene	64		78		40-140	20		30
1,2,4,5-Tetrachlorobenzene	52		72		2-134	32	Q	30
Acetophenone	73		81		39-129	10		30
2,4,6-Trichlorophenol	71		86		30-130	19		30
p-Chloro-m-cresol	70		89		23-97	24		30
2-Chlorophenol	67		78		27-123	15		30
2,4-Dichlorophenol	78		95		30-130	20		30
2,4-Dimethylphenol	74		96		30-130	26		30
2-Nitrophenol	72		88		30-130	20		30
4-Nitrophenol	86	Q	98	Q	10-80	13		30
2,4-Dinitrophenol	63		68		20-130	8		30
4,6-Dinitro-o-cresol	66		74		20-164	11		30
Pentachlorophenol	71		83		9-103	16		30
Phenol	44		54		12-110	20		30
2-Methylphenol	76		82		30-130	8		30
3-Methylphenol/4-Methylphenol	81		89		30-130	9		30
2,4,5-Trichlorophenol	74		87		30-130	16		30
Benzoic Acid	46		45		10-164	2		30
Benzyl Alcohol	74		86		26-116	15		30
Carbazole	73		88		55-144	19		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1197576-2 WG1197576-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	59		76		21-120
Phenol-d6	43		53		10-120
Nitrobenzene-d5	68		77		23-120
2-Fluorobiphenyl	63		75		15-120
2,4,6-Tribromophenol	73		81		10-120
4-Terphenyl-d14	56		66		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1197577-2 WG1197577-3								
Acenaphthene	74		78		40-140	5		40
2-Chloronaphthalene	76		82		40-140	8		40
Fluoranthene	92		95		40-140	3		40
Hexachlorobutadiene	69		76		40-140	10		40
Naphthalene	68		76		40-140	11		40
Benzo(a)anthracene	86		89		40-140	3		40
Benzo(a)pyrene	103		107		40-140	4		40
Benzo(b)fluoranthene	92		95		40-140	3		40
Benzo(k)fluoranthene	98		101		40-140	3		40
Chrysene	89		92		40-140	3		40
Acenaphthylene	83		89		40-140	7		40
Anthracene	83		87		40-140	5		40
Benzo(ghi)perylene	93		95		40-140	2		40
Fluorene	79		83		40-140	5		40
Phenanthrene	77		81		40-140	5		40
Dibenzo(a,h)anthracene	96		99		40-140	3		40
Indeno(1,2,3-cd)pyrene	103		106		40-140	3		40
Pyrene	89		91		40-140	2		40
2-Methylnaphthalene	73		80		40-140	9		40
Pentachlorophenol	71		73		40-140	3		40
Hexachlorobenzene	76		80		40-140	5		40
Hexachloroethane	69		75		40-140	8		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG1197577-2 WG1197577-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	52		57		21-120
Phenol-d6	41		45		10-120
Nitrobenzene-d5	78		85		23-120
2-Fluorobiphenyl	75		81		15-120
2,4,6-Tribromophenol	94		102		10-120
4-Terphenyl-d14	83		84		41-149

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 02-03 Batch: WG1197902-2 WG1197902-3								
1,4-Dioxane	107		111		40-140	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	27		24		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 02-03 Batch: WG1198461-2 WG1198461-3								
Perfluorobutanoic Acid (PFBA)	84		93		67-148	10		30
Perfluoropentanoic Acid (PFPeA)	88		96		63-161	9		30
Perfluorobutanesulfonic Acid (PFBS)	82		90		65-157	9		30
Perfluorohexanoic Acid (PFHxA)	90		98		69-168	9		30
Perfluoroheptanoic Acid (PFHpA)	78		84		58-159	7		30
Perfluorohexanesulfonic Acid (PFHxS)	84		92		69-177	9		30
Perfluorooctanoic Acid (PFOA)	82		88		63-159	7		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	102		101		49-187	1		30
Perfluoroheptanesulfonic Acid (PFHpS)	77		95		61-179	21		30
Perfluorononanoic Acid (PFNA)	84		90		68-171	7		30
Perfluorooctanesulfonic Acid (PFOS)	68		76		52-151	11		30
Perfluorodecanoic Acid (PFDA)	86		96		63-171	11		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	90		100		56-173	11		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	78		82		60-166	5		30
Perfluoroundecanoic Acid (PFUnA)	76		82		60-153	8		30
Perfluorodecanesulfonic Acid (PFDS)	88		89		38-156	1		30
Perfluorooctanesulfonamide (FOSA)	79		90		46-170	13		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	80		84		45-170	5		30
Perfluorododecanoic Acid (PFDoA)	78		86		67-153	10		30
Perfluorotridecanoic Acid (PFTrDA)	95		115		48-158	19		30
Perfluorotetradecanoic Acid (PFTA)	94		98		59-182	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 02-03 Batch: WG1198461-2 WG1198461-3								

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	107		108		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	116		114		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	107		110		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	92		90		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	101		97		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	105		111		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	108		103		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	96		112		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	123		114		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	107		101		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	106		96		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	97		96		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	95		78		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	124		111		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	36		44		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	93		80		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	106		88		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	153	Q	154	Q	33-143

PCBS

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-01
Client ID: RMW18_011419
Sample Location: BRONX, NY

Date Collected: 01/14/19 14:27
Date Received: 01/14/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 01/17/19 11:42
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 01/15/19 16:07
Cleanup Method: EPA 3665A
Cleanup Date: 01/17/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/17/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	68		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-02
Client ID: RMW22_011419
Sample Location: BRONX, NY

Date Collected: 01/14/19 12:22
Date Received: 01/14/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 01/17/19 11:56
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 01/15/19 16:07
Cleanup Method: EPA 3665A
Cleanup Date: 01/17/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/17/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	86		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8082A
 Analytical Date: 01/16/19 05:11
 Analyst: AWS

Extraction Method: EPA 3510C
 Extraction Date: 01/14/19 16:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/15/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/15/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-02 Batch: WG1197529-1						
Aroclor 1016	ND		ug/l	0.082	0.034	A
Aroclor 1221	ND		ug/l	0.082	0.066	A
Aroclor 1232	ND		ug/l	0.082	0.045	A
Aroclor 1242	ND		ug/l	0.082	0.038	A
Aroclor 1248	ND		ug/l	0.082	0.048	A
Aroclor 1254	ND		ug/l	0.082	0.039	A
Aroclor 1260	ND		ug/l	0.082	0.032	A
Aroclor 1262	ND		ug/l	0.082	0.034	A
Aroclor 1268	ND		ug/l	0.082	0.033	A
PCBs, Total	ND		ug/l	0.082	0.032	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	80		30-150	A
2,4,5,6-Tetrachloro-m-xylene	86		30-150	B
Decachlorobiphenyl	94		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901689

Report Date: 01/21/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1197529-2 WG1197529-3									
Aroclor 1016	88		85		40-140	4		50	A
Aroclor 1260	92		83		40-140	10		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		84		30-150	A
Decachlorobiphenyl	88		89		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		87		30-150	B
Decachlorobiphenyl	115		95		30-150	B

PESTICIDES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-01
 Client ID: RMW18_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 14:27
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/17/19 12:01
 Analyst: SL

Extraction Method: EPA 3510C
 Extraction Date: 01/15/19 16:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901689**Project Number:** 170487001**Report Date:** 01/21/19**SAMPLE RESULTS**

Lab ID: L1901689-01

Date Collected: 01/14/19 14:27

Client ID: RMW18_011419

Date Received: 01/14/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	57		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-01
 Client ID: RMW18_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 14:27
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/19/19 01:24
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/17/19 17:14

Methylation Date: 01/18/19 15:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	110		30-150	A
DCAA	89		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-02
 Client ID: RMW22_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 12:22
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/17/19 12:13
 Analyst: SL

Extraction Method: EPA 3510C
 Extraction Date: 01/15/19 16:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901689**Project Number:** 170487001**Report Date:** 01/21/19**SAMPLE RESULTS**

Lab ID: L1901689-02

Date Collected: 01/14/19 12:22

Client ID: RMW22_011419

Date Received: 01/14/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	61		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	65		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-02
 Client ID: RMW22_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 12:22
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/19/19 01:43
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/17/19 17:14

Methylation Date: 01/18/19 15:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	100		30-150	A
DCAA	84		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/16/19 12:52
Analyst: SL

Extraction Method: EPA 3510C
Extraction Date: 01/14/19 16:03

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-02 Batch: WG1197534-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
4,4'-DDT	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A
Heptachlor	ND		ug/l	0.014	0.002	B
Endrin ketone	ND		ug/l	0.029	0.003	B

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901689**Project Number:** 170487001**Report Date:** 01/21/19**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 01/16/19 12:52
 Analyst: SL

Extraction Method: EPA 3510C
 Extraction Date: 01/14/19 16:03

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-02 Batch: WG1197534-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	36		30-150	A
Decachlorobiphenyl	41		30-150	A
2,4,5,6-Tetrachloro-m-xylene	38		30-150	B
Decachlorobiphenyl	43		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
 Analytical Date: 01/19/19 00:27
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/17/19 17:14

Methylation Date: 01/18/19 15:30

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-02 Batch: WG1198662-1						
2,4-D	ND		ug/l	10.0	0.498	A
2,4,5-T	ND		ug/l	2.00	0.531	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	99		30-150	A
DCAA	82		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1197534-2 WG1197534-3									
Delta-BHC	88		78		30-150	12		20	A
Lindane	84		75		30-150	11		20	A
Alpha-BHC	92		80		30-150	14		20	A
Beta-BHC	95		88		30-150	8		20	A
Heptachlor	88		78		30-150	13		20	A
Aldrin	87		77		30-150	12		20	A
Heptachlor epoxide	96		85		30-150	11		20	A
Endrin	94		82		30-150	13		20	A
Endrin aldehyde	84		73		30-150	14		20	A
Endrin ketone	98		86		30-150	14		20	A
Dieldrin	98		86		30-150	13		20	A
4,4'-DDE	92		81		30-150	13		20	A
4,4'-DDD	91		81		30-150	12		20	A
4,4'-DDT	92		80		30-150	15		20	A
Endosulfan I	89		80		30-150	11		20	A
Endosulfan II	91		79		30-150	14		20	A
Endosulfan sulfate	94		83		30-150	11		20	A
Methoxychlor	101		91		30-150	10		20	A
cis-Chlordane	80		73		30-150	10		20	A
trans-Chlordane	82		73		30-150	10		20	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1197534-2 WG1197534-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	85		74		30-150	A
Decachlorobiphenyl	85		48		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		76		30-150	B
Decachlorobiphenyl	93		49		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG1198662-2 WG1198662-3									
2,4-D	93		93		30-150	0		25	A
2,4,5-T	107		105		30-150	2		25	A
2,4,5-TP (Silvex)	90		91		30-150	1		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	103		102		30-150	A
DCAA	95		96		30-150	B



METALS

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-01
 Client ID: RMW18_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 14:27
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	21.7		mg/l	0.0100	0.00327	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Antimony, Total	0.00104	J	mg/l	0.00400	0.00042	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00684		mg/l	0.00050	0.00016	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Barium, Total	0.3261		mg/l	0.00050	0.00017	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Beryllium, Total	0.00126		mg/l	0.00050	0.00010	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00029		mg/l	0.00020	0.00005	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Calcium, Total	137.		mg/l	0.100	0.0394	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Chromium, Total	0.03672		mg/l	0.00100	0.00017	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Cobalt, Total	0.01846		mg/l	0.00050	0.00016	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Copper, Total	0.04824		mg/l	0.00100	0.00038	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Iron, Total	36.4		mg/l	0.0750	0.0191	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Lead, Total	0.2268		mg/l	0.00100	0.00034	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Magnesium, Total	43.2		mg/l	0.0700	0.0242	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Manganese, Total	2.553		mg/l	0.00100	0.00044	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/16/19 12:18	01/16/19 20:32	EPA 7470A	1,7470A	MG
Nickel, Total	0.03340		mg/l	0.00200	0.00055	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Potassium, Total	15.0		mg/l	0.100	0.0309	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Selenium, Total	0.00469	J	mg/l	0.00500	0.00173	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Silver, Total	0.00039	J	mg/l	0.00040	0.00016	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Sodium, Total	67.6		mg/l	0.100	0.0293	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Thallium, Total	0.00035	J	mg/l	0.00050	0.00014	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Vanadium, Total	0.04135		mg/l	0.00500	0.00157	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
Zinc, Total	0.1396		mg/l	0.01000	0.00341	1	01/15/19 16:37	01/16/19 14:10	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	0.036		mg/l	0.010	0.010	1		01/16/19 14:10	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901689**Project Number:** 170487001**Report Date:** 01/21/19**SAMPLE RESULTS**

Lab ID: L1901689-01
 Client ID: RMW18_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 14:27
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00359	J	mg/l	0.0100	0.00327	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00130	J	mg/l	0.00400	0.00042	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00231		mg/l	0.00050	0.00016	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.1119		mg/l	0.00050	0.00017	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Calcium, Dissolved	130.		mg/l	0.100	0.0394	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00026	J	mg/l	0.00100	0.00017	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00274		mg/l	0.00050	0.00016	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.00078	J	mg/l	0.00100	0.00038	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Iron, Dissolved	5.45		mg/l	0.0750	0.0191	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.00124		mg/l	0.00100	0.00034	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	36.9		mg/l	0.0700	0.0242	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Manganese, Dissolved	1.982		mg/l	0.00150	0.00044	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/16/19 14:45	01/16/19 21:11	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00184	J	mg/l	0.00200	0.00055	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Potassium, Dissolved	12.2		mg/l	0.100	0.0309	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Silver, Dissolved	0.00030	J	mg/l	0.00040	0.00016	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Sodium, Dissolved	73.5		mg/l	0.100	0.0293	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM
Zinc, Dissolved	0.00439	J	mg/l	0.01000	0.00341	1	01/15/19 12:51	01/16/19 12:18	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

SAMPLE RESULTS

Lab ID: L1901689-02
 Client ID: RMW22_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 12:22
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	2.22		mg/l	0.0100	0.00327	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Antimony, Total	0.00088	J	mg/l	0.00400	0.00042	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00532		mg/l	0.00050	0.00016	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Barium, Total	0.1612		mg/l	0.00050	0.00017	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Beryllium, Total	0.00015	J	mg/l	0.00050	0.00010	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00008	J	mg/l	0.00020	0.00005	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Calcium, Total	55.3		mg/l	0.100	0.0394	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Chromium, Total	0.00468		mg/l	0.00100	0.00017	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00212		mg/l	0.00050	0.00016	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Copper, Total	0.00900		mg/l	0.00100	0.00038	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Iron, Total	4.77		mg/l	0.0750	0.0191	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Lead, Total	0.2394		mg/l	0.00100	0.00034	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Magnesium, Total	13.2		mg/l	0.0700	0.0242	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Manganese, Total	1.111		mg/l	0.00100	0.00044	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Mercury, Total	0.00045		mg/l	0.00020	0.00006	1	01/16/19 12:18	01/16/19 20:33	EPA 7470A	1,7470A	MG
Nickel, Total	0.00627		mg/l	0.00200	0.00055	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Potassium, Total	7.15		mg/l	0.100	0.0309	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Silver, Total	0.00022	J	mg/l	0.00040	0.00016	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Sodium, Total	45.5		mg/l	0.100	0.0293	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Vanadium, Total	0.00464	J	mg/l	0.00500	0.00157	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
Zinc, Total	0.02428		mg/l	0.01000	0.00341	1	01/15/19 16:37	01/16/19 14:14	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/16/19 14:14	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901689**Project Number:** 170487001**Report Date:** 01/21/19**SAMPLE RESULTS**

Lab ID: L1901689-02
 Client ID: RMW22_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 12:22
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00770	J	mg/l	0.0100	0.00327	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00066	J	mg/l	0.00400	0.00042	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00392		mg/l	0.00050	0.00016	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.09109		mg/l	0.00050	0.00017	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Calcium, Dissolved	53.0		mg/l	0.100	0.0394	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00035	J	mg/l	0.00100	0.00017	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00071		mg/l	0.00050	0.00016	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.00209		mg/l	0.00100	0.00038	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Iron, Dissolved	1.75		mg/l	0.0750	0.0191	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.00323		mg/l	0.00100	0.00034	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	12.4		mg/l	0.0700	0.0242	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Manganese, Dissolved	1.015		mg/l	0.00150	0.00044	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/16/19 14:45	01/16/19 21:16	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00119	J	mg/l	0.00200	0.00055	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Potassium, Dissolved	6.83		mg/l	0.100	0.0309	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Sodium, Dissolved	44.0		mg/l	0.100	0.0293	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/15/19 12:51	01/16/19 14:18	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1197826-1										
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Antimony, Dissolved	0.00056	J	mg/l	0.00400	0.00042	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Barium, Dissolved	ND		mg/l	0.00050	0.00017	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Calcium, Dissolved	ND		mg/l	0.100	0.0394	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Iron, Dissolved	0.0443	J	mg/l	0.0750	0.0191	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Magnesium, Dissolved	ND		mg/l	0.0700	0.0242	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Manganese, Dissolved	0.00122	J	mg/l	0.00150	0.00044	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Potassium, Dissolved	ND		mg/l	0.100	0.0309	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Sodium, Dissolved	ND		mg/l	0.100	0.0293	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/15/19 12:51	01/16/19 11:57	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1197906-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Antimony, Total	0.00063	J	mg/l	0.00400	0.00042	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Barium, Total	ND		mg/l	0.00050	0.00017	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Method Blank Analysis Batch Quality Control

Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Calcium, Total	ND		mg/l	0.100	0.0394	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Chromium, Total	0.00025	J	mg/l	0.00100	0.00017	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Copper, Total	ND		mg/l	0.00100	0.00038	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Iron, Total	0.0294	J	mg/l	0.0750	0.0191	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Nickel, Total	ND		mg/l	0.00200	0.00055	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Sodium, Total	ND		mg/l	0.100	0.0293	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	01/15/19 16:37	01/16/19 13:45	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1198190-1										
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/16/19 12:18	01/16/19 20:16	1,7470A	MG

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-02 Batch: WG1198242-1										
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/16/19 14:45	01/16/19 21:02	1,7470A	MG



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1197826-2								
Aluminum, Dissolved	108		-		80-120	-		
Antimony, Dissolved	94		-		80-120	-		
Arsenic, Dissolved	106		-		80-120	-		
Barium, Dissolved	108		-		80-120	-		
Beryllium, Dissolved	107		-		80-120	-		
Cadmium, Dissolved	114		-		80-120	-		
Calcium, Dissolved	102		-		80-120	-		
Chromium, Dissolved	98		-		80-120	-		
Cobalt, Dissolved	102		-		80-120	-		
Copper, Dissolved	96		-		80-120	-		
Iron, Dissolved	116		-		80-120	-		
Lead, Dissolved	117		-		80-120	-		
Magnesium, Dissolved	108		-		80-120	-		
Manganese, Dissolved	102		-		80-120	-		
Nickel, Dissolved	103		-		80-120	-		
Potassium, Dissolved	105		-		80-120	-		
Selenium, Dissolved	111		-		80-120	-		
Silver, Dissolved	108		-		80-120	-		
Sodium, Dissolved	104		-		80-120	-		
Thallium, Dissolved	112		-		80-120	-		
Vanadium, Dissolved	101		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1197826-2					
Zinc, Dissolved	111	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1197906-2					
Aluminum, Total	102	-	80-120	-	
Antimony, Total	92	-	80-120	-	
Arsenic, Total	98	-	80-120	-	
Barium, Total	98	-	80-120	-	
Beryllium, Total	105	-	80-120	-	
Cadmium, Total	108	-	80-120	-	
Calcium, Total	96	-	80-120	-	
Chromium, Total	92	-	80-120	-	
Cobalt, Total	96	-	80-120	-	
Copper, Total	95	-	80-120	-	
Iron, Total	104	-	80-120	-	
Lead, Total	106	-	80-120	-	
Magnesium, Total	103	-	80-120	-	
Manganese, Total	96	-	80-120	-	
Nickel, Total	96	-	80-120	-	
Potassium, Total	100	-	80-120	-	
Selenium, Total	109	-	80-120	-	
Silver, Total	103	-	80-120	-	
Sodium, Total	99	-	80-120	-	
Thallium, Total	103	-	80-120	-	
Vanadium, Total	96	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1197906-2					
Zinc, Total	102	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1198190-2					
Mercury, Total	87	-	80-120	-	
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 Batch: WG1198242-2					
Mercury, Dissolved	101	-	80-120	-	

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1197826-3 QC Sample: L1901689-01 Client ID: RMW18_011419												
Aluminum, Dissolved	0.00359J	2	2.11	106		-	-		75-125	-		20
Antimony, Dissolved	0.00130J	0.5	0.5864	117		-	-		75-125	-		20
Arsenic, Dissolved	0.00231	0.12	0.1304	107		-	-		75-125	-		20
Barium, Dissolved	0.1119	2	2.159	102		-	-		75-125	-		20
Beryllium, Dissolved	ND	0.05	0.05368	107		-	-		75-125	-		20
Cadmium, Dissolved	ND	0.051	0.05450	107		-	-		75-125	-		20
Calcium, Dissolved	130.	10	134	40	Q	-	-		75-125	-		20
Chromium, Dissolved	0.00026J	0.2	0.1884	94		-	-		75-125	-		20
Cobalt, Dissolved	0.00274	0.5	0.4805	96		-	-		75-125	-		20
Copper, Dissolved	0.00078J	0.25	0.2300	92		-	-		75-125	-		20
Iron, Dissolved	5.45	1	6.40	95		-	-		75-125	-		20
Lead, Dissolved	0.00124	0.51	0.5530	108		-	-		75-125	-		20
Magnesium, Dissolved	36.9	10	46.1	92		-	-		75-125	-		20
Manganese, Dissolved	1.982	0.5	2.439	91		-	-		75-125	-		20
Nickel, Dissolved	0.00184J	0.5	0.4839	97		-	-		75-125	-		20
Potassium, Dissolved	12.2	10	21.8	96		-	-		75-125	-		20
Selenium, Dissolved	ND	0.12	0.129	108		-	-		75-125	-		20
Silver, Dissolved	0.00030J	0.05	0.05037	101		-	-		75-125	-		20
Sodium, Dissolved	73.5	10	79.9	64	Q	-	-		75-125	-		20
Thallium, Dissolved	ND	0.12	0.1243	104		-	-		75-125	-		20
Vanadium, Dissolved	ND	0.5	0.4823	96		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1197826-3 QC Sample: L1901689-01 Client ID: RMW18_011419									
Zinc, Dissolved	0.00439J	0.5	0.5212	104	-	-	75-125	-	20

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1197906-3 QC Sample: L1901689-01 Client ID: RMW18_011419									
Aluminum, Total	21.7	2	23.5	90	-	-	75-125	-	20
Antimony, Total	0.00104J	0.5	0.4475	90	-	-	75-125	-	20
Arsenic, Total	0.00684	0.12	0.1330	105	-	-	75-125	-	20
Barium, Total	0.3261	2	2.496	108	-	-	75-125	-	20
Beryllium, Total	0.00126	0.05	0.05060	99	-	-	75-125	-	20
Cadmium, Total	0.00029	0.051	0.06166	120	-	-	75-125	-	20
Calcium, Total	137.	10	140	30	Q	-	75-125	-	20
Chromium, Total	0.03672	0.2	0.2317	97	-	-	75-125	-	20
Cobalt, Total	0.01846	0.5	0.5180	100	-	-	75-125	-	20
Copper, Total	0.04824	0.25	0.2866	95	-	-	75-125	-	20
Iron, Total	36.4	1	34.4	0	Q	-	75-125	-	20
Lead, Total	0.2268	0.51	0.8128	115	-	-	75-125	-	20
Magnesium, Total	43.2	10	54.0	108	-	-	75-125	-	20
Manganese, Total	2.553	0.5	2.978	85	-	-	75-125	-	20
Nickel, Total	0.03340	0.5	0.5149	96	-	-	75-125	-	20
Potassium, Total	15.0	10	24.1	91	-	-	75-125	-	20
Selenium, Total	0.00469J	0.12	0.119	99	-	-	75-125	-	20
Silver, Total	0.00039J	0.05	0.05555	111	-	-	75-125	-	20
Sodium, Total	67.6	10	77.1	95	-	-	75-125	-	20
Thallium, Total	0.00035J	0.12	0.1332	111	-	-	75-125	-	20
Vanadium, Total	0.04135	0.5	0.5438	100	-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1197906-3 QC Sample: L1901689-01 Client ID: RMW18_011419									
Zinc, Total	0.1396	0.5	0.6858	109	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1198190-3 QC Sample: L1901495-01 Client ID: MS Sample									
Mercury, Total	ND	0.005	0.00432	86	-	-	75-125	-	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1198242-3 QC Sample: L1901689-01 Client ID: RMW18_011419									
Mercury, Dissolved	ND	0.005	0.00538	108	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901689

Report Date: 01/21/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1197826-4 QC Sample: L1901689-01 Client ID: RMW18_011419						
Aluminum, Dissolved	0.00359J	0.00431J	mg/l	NC		20
Antimony, Dissolved	0.00130J	0.00289J	mg/l	NC		20
Arsenic, Dissolved	0.00231	0.00230	mg/l	1		20
Barium, Dissolved	0.1119	0.1068	mg/l	5		20
Beryllium, Dissolved	ND	ND	mg/l	NC		20
Cadmium, Dissolved	ND	ND	mg/l	NC		20
Calcium, Dissolved	130.	127	mg/l	2		20
Chromium, Dissolved	0.00026J	0.00033J	mg/l	NC		20
Cobalt, Dissolved	0.00274	0.00261	mg/l	5		20
Copper, Dissolved	0.00078J	0.00081J	mg/l	NC		20
Iron, Dissolved	5.45	5.33	mg/l	2		20
Lead, Dissolved	0.00124	0.00122	mg/l	2		20
Magnesium, Dissolved	36.9	35.9	mg/l	3		20
Manganese, Dissolved	1.982	1.943	mg/l	2		20
Nickel, Dissolved	0.00184J	0.00172J	mg/l	NC		20
Potassium, Dissolved	12.2	11.7	mg/l	4		20
Selenium, Dissolved	ND	ND	mg/l	NC		20
Silver, Dissolved	0.00030J	0.00030J	mg/l	NC		20
Sodium, Dissolved	73.5	71.5	mg/l	3		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901689

Report Date: 01/21/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1197826-4 QC Sample: L1901689-01 Client ID: RMW18_011419					
Thallium, Dissolved	ND	0.00030J	mg/l	NC	20
Vanadium, Dissolved	ND	ND	mg/l	NC	20
Zinc, Dissolved	0.00439J	0.00397J	mg/l	NC	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901689

Report Date: 01/21/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1197906-4 QC Sample: L1901689-01 Client ID: RMW18_011419					
Aluminum, Total	21.7	18.9	mg/l	14	20
Antimony, Total	0.00104J	0.00291J	mg/l	NC	20
Arsenic, Total	0.00684	0.00647	mg/l	6	20
Barium, Total	0.3261	0.3094	mg/l	5	20
Beryllium, Total	0.00126	0.00141	mg/l	12	20
Cadmium, Total	0.00029	0.00024	mg/l	20	20
Calcium, Total	137.	136	mg/l	1	20
Chromium, Total	0.03672	0.03368	mg/l	9	20
Cobalt, Total	0.01846	0.01661	mg/l	11	20
Copper, Total	0.04824	0.04481	mg/l	7	20
Iron, Total	36.4	33.4	mg/l	9	20
Lead, Total	0.2268	0.2270	mg/l	0	20
Magnesium, Total	43.2	43.1	mg/l	0	20
Manganese, Total	2.553	2.516	mg/l	1	20
Nickel, Total	0.03340	0.03023	mg/l	10	20
Potassium, Total	15.0	13.9	mg/l	8	20
Selenium, Total	0.00469J	0.00446J	mg/l	NC	20
Silver, Total	0.00039J	0.00062	mg/l	NC	20
Sodium, Total	67.6	69.9	mg/l	3	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901689

Report Date: 01/21/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1197906-4 QC Sample: L1901689-01 Client ID: RMW18_011419					
Thallium, Total	0.00035J	0.00055	mg/l	NC	20
Vanadium, Total	0.04135	0.03708	mg/l	11	20
Zinc, Total	0.1396	0.1233	mg/l	12	20
Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1198190-4 QC Sample: L1901495-01 Client ID: DUP Sample					
Mercury, Total	ND	ND	mg/l	NC	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1198242-4 QC Sample: L1901689-01 Client ID: RMW18_011419					
Mercury, Dissolved	ND	ND	mg/l	NC	20

INORGANICS & MISCELLANEOUS

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901689**Project Number:** 170487001**Report Date:** 01/21/19**SAMPLE RESULTS**

Lab ID: L1901689-01
 Client ID: RMW18_011419
 Sample Location: BRONX, NY

Date Collected: 01/14/19 14:27
 Date Received: 01/14/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	01/15/19 14:15	01/16/19 12:12	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/15/19 06:15	01/15/19 07:03	1,7196A	JT



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901689**Project Number:** 170487001**Report Date:** 01/21/19**SAMPLE RESULTS**

Lab ID: L1901689-02

Date Collected: 01/14/19 12:22

Client ID: RMW22_011419

Date Received: 01/14/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	01/15/19 14:15	01/16/19 12:53	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/15/19 06:15	01/15/19 07:03	1,7196A	JT



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1197667-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/15/19 06:15	01/15/19 07:00	1,7196A	JT
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1197810-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	01/15/19 14:15	01/16/19 11:40	1,9010C/9012B	LH

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901689

Report Date: 01/21/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1197667-2								
Chromium, Hexavalent	96		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1197810-2 WG1197810-3								
Cyanide, Total	96		93		85-115	3		20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1197667-4 QC Sample: L1901689-02 Client ID: RMW22_011419												
Chromium, Hexavalent	ND	0.1	0.095	95		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1197810-4 WG1197810-5 QC Sample: L1901689-01 Client ID: RMW18_011419												
Cyanide, Total	0.003J	0.2	0.189	94		0.191	96		80-120	1		20

Lab Duplicate Analysis*Batch Quality Control***Project Name:** GERARD AVE. + E. 146TH ST.**Lab Number:** L1901689**Project Number:** 170487001**Report Date:** 01/21/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1197667-3 QC Sample: L1901689-02 Client ID: RMW22_011419						
Chromium, Hexavalent	ND	ND	mg/l	NC		20

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Serial_No:01211917:18
Lab Number: L1901689
Report Date: 01/21/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1901689-01A	Vial HCl preserved	B	NA		2.5	Y	Absent		NYTCL-8260(14)
L1901689-01B	Vial HCl preserved	B	NA		2.5	Y	Absent		NYTCL-8260(14)
L1901689-01C	Vial HCl preserved	B	NA		2.5	Y	Absent		NYTCL-8260(14)
L1901689-01D	Plastic 250ml HNO3 preserved	B	<2	<2	2.5	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1901689-01E	Plastic 250ml HNO3 preserved	B	<2	<2	2.5	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1901689-01F	Plastic 250ml NaOH preserved	B	>12	>12	2.5	Y	Absent		TCN-9010(14)
L1901689-01G	Plastic 500ml unpreserved	B	7	7	2.5	Y	Absent		HEXCR-7196(1)
L1901689-01H	Amber 120ml unpreserved	B	7	7	2.5	Y	Absent		NYTCL-8082-LVI(7)
L1901689-01I	Amber 120ml unpreserved	B	7	7	2.5	Y	Absent		NYTCL-8082-LVI(7)
L1901689-01J	Amber 120ml unpreserved	B	7	7	2.5	Y	Absent		NYTCL-8081(7)
L1901689-01K	Amber 120ml unpreserved	B	7	7	2.5	Y	Absent		NYTCL-8081(7)
L1901689-01L	Amber 250ml unpreserved	B	7	7	2.5	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901689-01M	Amber 250ml unpreserved	B	7	7	2.5	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901689-01N	Amber 1000ml unpreserved	B	7	7	2.5	Y	Absent		HERB-APA(7)

*Values in parentheses indicate holding time in days



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901689

Project Number: 170487001

Report Date: 01/21/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1901689-01O	Amber 1000ml unpreserved	B	7	7	2.5	Y	Absent		HERB-APA(7)
L1901689-02A	Vial HCl preserved	B	NA		2.5	Y	Absent		NYTCL-8260(14)
L1901689-02B	Vial HCl preserved	B	NA		2.5	Y	Absent		NYTCL-8260(14)
L1901689-02C	Vial HCl preserved	B	NA		2.5	Y	Absent		NYTCL-8260(14)
L1901689-02D	Plastic 250ml unpreserved	A	NA		3.2	Y	Absent		A2-NY-537-ISOTOPE(14)
L1901689-02E	Plastic 250ml unpreserved	A	NA		3.2	Y	Absent		A2-NY-537-ISOTOPE(14)
L1901689-02F	Plastic 250ml HNO3 preserved	B	<2	<2	2.5	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1901689-02G	Plastic 250ml HNO3 preserved	B	<2	<2	2.5	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1901689-02H	Plastic 250ml NaOH preserved	B	>12	>12	2.5	Y	Absent		TCN-9010(14)
L1901689-02I	Plastic 500ml unpreserved	B	7	7	2.5	Y	Absent		HEXCR-7196(1)
L1901689-02J	Amber 120ml unpreserved	B	7	7	2.5	Y	Absent		NYTCL-8082-LVI(7)
L1901689-02K	Amber 120ml unpreserved	B	7	7	2.5	Y	Absent		NYTCL-8082-LVI(7)
L1901689-02L	Amber 120ml unpreserved	B	7	7	2.5	Y	Absent		NYTCL-8081(7)
L1901689-02M	Amber 120ml unpreserved	B	7	7	2.5	Y	Absent		NYTCL-8081(7)
L1901689-02N	Amber 250ml unpreserved	B	7	7	2.5	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901689-02O	Amber 250ml unpreserved	B	7	7	2.5	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901689-02P	Amber 500ml unpreserved	A	7	7	3.2	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1901689-02Q	Amber 500ml unpreserved	A	7	7	3.2	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1901689-02R	Amber 1000ml unpreserved	B	7	7	2.5	Y	Absent		HERB-APA(7)
L1901689-02S	Amber 1000ml unpreserved	B	7	7	2.5	Y	Absent		HERB-APA(7)

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Serial_No:01211917:18

Lab Number: L1901689

Report Date: 01/21/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1901689-03A	Plastic 250ml unpreserved	A	NA		3.2	Y	Absent		A2-NY-537-ISOTOPE(14)
L1901689-03B	Plastic 250ml unpreserved	A	NA		3.2	Y	Absent		A2-NY-537-ISOTOPE(14)
L1901689-03C	Amber 500ml unpreserved	A	7	7	3.2	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1901689-03D	Amber 500ml unpreserved	A	7	7	3.2	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1901689-04A	Vial HCl preserved	B	NA		2.5	Y	Absent		NYTCL-8260(14)
L1901689-04B	Vial HCl preserved	B	NA		2.5	Y	Absent		NYTCL-8260(14)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901689
Report Date: 01/21/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.
- 122 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537, EPA/600/R-08/092. Version 1.1, September 2009.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at its own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page of		Date Rec'd In Lab 1/14/19		ALPHA Job # 490169						
		Project Information Project Name: Gerard Ave. + E. 146th St. Project Location: Bronx NY Project # 170487001		Deliverables <input checked="" type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input checked="" type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #								
		Client Information Client: Langan Engineering Address: 21 Penn Plaza, 360 W. 31st St 8th Fl., NY, NY 10001-2727 Phone: (212) 479-5400 Fax: (212) 479-5444 Email: jleung@langan.com		(Use Project name as Project #) <input type="checkbox"/> Project Manager: Julia Leung ALPHAQuote #: 7013 Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre-approved) <input type="checkbox"/> # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:						
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: Please also cc: datamanagement@langan.com and vzuluaga@langan.com Please specify Metals or TAL.		ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)		Total Bottles								
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Part 375/TCL VOCs	Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides/hedrocarbons	Herbicides PFOS + 1,4-Dioxane	TAL Metals	Hexavalent Chromium	Total Cyanide	Sample Specific Comments
01689-01	RMW18-011419	1/14/19	1427	GW	JL	X	X	X	X	X	X	X	X	dissolved metals
-02	RMW22-011419		1822	GW	JL	X	X	X	X	X	X	X	X	filter in field
03	GWFB01-011419		1300	AG	JL					X				
04	GWTB01-011419			AG	-	X								
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type		Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)				
Relinquished By:		Date/Time		Received By:		Date/Time								
JL D. Santos AAC		1/14/19 - 1525 1/14/19 1635 1/14/19 2300		[Signature] D. Santos AAC [Signature]		1/14/19 1527 1/14/19 1900 1/14/19 2300								



ANALYTICAL REPORT

Lab Number:	L1901865
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	GERARD AVE. + E. 146TH ST.
Project Number:	170487001
Report Date:	01/22/19

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1901865-01	RMW03_011519	WATER	BRONX, NY	01/15/19 15:30	01/15/19
L1901865-02	RMW04_011519	WATER	BRONX, NY	01/15/19 13:00	01/15/19
L1901865-03	RMW05_011519	WATER	BRONX, NY	01/15/19 11:00	01/15/19
L1901865-04	GWDUP01_011519	WATER	BRONX, NY	01/15/19 00:00	01/15/19
L1901865-05	GWTB02_011519	WATER	BRONX, NY	01/15/19 00:00	01/15/19

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The analyses performed were specified by the client.

Pesticides

L1901865-01, -03 and -04: The sample has elevated detection limits due to the dilution required by the sample matrix.

L1901865-03: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (0%) and decachlorobiphenyl (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Total Metals

The WG1198177-3/-4 MS/MSD recoveries for calcium (250%/310%), iron (151%/161%), magnesium (152%/168%) and sodium (290%/310%), performed on L1901865-02, do not apply because the sample concentrations are greater than four times the spike amounts added.

Dissolved Metals

The WG1198261-3/-4 MS/MSD recoveries for calcium (320%/510%), iron (141%/185%), magnesium (161%/182%) and sodium (310%/370%), performed on L1901865-02, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1198261-4 MSD recovery, performed on L1901865-02, is outside the acceptance criteria for potassium (137%). A post digestion spike was performed and was within acceptance criteria.

The WG1198576-4 MSD recovery, performed on L1901865-02, is outside the acceptance criteria for mercury (56%). A post digestion spike was performed and was within acceptance criteria.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Case Narrative (continued)

The WG1198576-3/-4 MS/MSD RPD for mercury (39%), performed on L1901865-02, is above the acceptance criteria.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Amita Naik

Title: Technical Director/Representative

Date: 01/22/19

ORGANICS

VOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-01
 Client ID: RMW03_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 15:30
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/17/19 15:16
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	92		ug/l	0.50	0.16	1
Toluene	2.0	J	ug/l	2.5	0.70	1
Ethylbenzene	2.2	J	ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-01
 Client ID: RMW03_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 15:30
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	11		ug/l	2.5	0.70	1
o-Xylene	2.0	J	ug/l	2.5	0.70	1
Xylenes, Total	13	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	1.2	J	ug/l	2.5	0.70	1
sec-Butylbenzene	3.5		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	20		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	30		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-01
 Client ID: RMW03_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 15:30
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	13		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	0.73	J	ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	8.4		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	2.4		ug/l	2.0	0.70	1
p-Ethyltoluene	2.3		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	20		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	97		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-02
 Client ID: RMW04_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 13:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/17/19 15:44
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	0.49	J	ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19**SAMPLE RESULTS**

Lab ID: L1901865-02
 Client ID: RMW04_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 13:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	2.8		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-02
Client ID: RMW04_011519
Sample Location: BRONX, NY

Date Collected: 01/15/19 13:00
Date Received: 01/15/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	98		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-03
 Client ID: RMW05_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 11:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/17/19 16:12
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19**SAMPLE RESULTS**

Lab ID: L1901865-03
 Client ID: RMW05_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 11:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-03
 Client ID: RMW05_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 11:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	100		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-04
 Client ID: GWDUP01_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 00:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/17/19 16:40
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	89		ug/l	0.50	0.16	1
Toluene	2.0	J	ug/l	2.5	0.70	1
Ethylbenzene	2.2	J	ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19**SAMPLE RESULTS**

Lab ID: L1901865-04
 Client ID: GWDUP01_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 00:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	11		ug/l	2.5	0.70	1
o-Xylene	2.0	J	ug/l	2.5	0.70	1
Xylenes, Total	13	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	1.3	J	ug/l	2.5	0.70	1
sec-Butylbenzene	3.5		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	21		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	28		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-04
 Client ID: GWDUP01_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 00:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	13		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	0.77	J	ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	8.6		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	2.5		ug/l	2.0	0.70	1
p-Ethyltoluene	2.3		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	20		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	95		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-05
 Client ID: GWTB02_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 00:00
 Date Received: 01/15/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/17/19 17:07
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-05
 Client ID: GWTB02_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 00:00
 Date Received: 01/15/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-05
 Client ID: GWTB02_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 00:00
 Date Received: 01/15/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	99		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/17/19 09:13
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1198696-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/17/19 09:13
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1198696-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/17/19 09:13
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1198696-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1198696-3 WG1198696-4								
Methylene chloride	92		91		70-130	1		20
1,1-Dichloroethane	96		98		70-130	2		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	90		93		63-132	3		20
1,2-Dichloropropane	96		100		70-130	4		20
Dibromochloromethane	99		100		63-130	1		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	95		98		70-130	3		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	72		75		62-150	4		20
1,2-Dichloroethane	95		100		70-130	5		20
1,1,1-Trichloroethane	94		95		67-130	1		20
Bromodichloromethane	96		98		67-130	2		20
trans-1,3-Dichloropropene	99		100		70-130	1		20
cis-1,3-Dichloropropene	93		97		70-130	4		20
1,1-Dichloropropene	89		92		70-130	3		20
Bromoform	99		100		54-136	1		20
1,1,2,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	91		94		70-130	3		20
Toluene	100		100		70-130	0		20
Ethylbenzene	99		100		70-130	1		20
Chloromethane	54	Q	55	Q	64-130	2		20
Bromomethane	43		29	Q	39-139	39	Q	20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1198696-3 WG1198696-4								
Vinyl chloride	75		75		55-140	0		20
Chloroethane	100		100		55-138	0		20
1,1-Dichloroethene	78		80		61-145	3		20
trans-1,2-Dichloroethene	90		94		70-130	4		20
Trichloroethene	93		96		70-130	3		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	93		100		63-130	7		20
p/m-Xylene	100		105		70-130	5		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	95		97		70-130	2		20
Dibromomethane	94		98		70-130	4		20
1,2,3-Trichloropropane	100		110		64-130	10		20
Acrylonitrile	92		100		70-130	8		20
Styrene	90		95		70-130	5		20
Dichlorodifluoromethane	56		57		36-147	2		20
Acetone	83		75		58-148	10		20
Carbon disulfide	81		82		51-130	1		20
2-Butanone	93		98		63-138	5		20
Vinyl acetate	110		110		70-130	0		20
4-Methyl-2-pentanone	88		110		59-130	22	Q	20
2-Hexanone	80		96		57-130	18		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1198696-3 WG1198696-4								
Bromochloromethane	99		100		70-130	1		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	96		100		70-130	4		20
1,3-Dichloropropane	100		110		70-130	10		20
1,1,1,2-Tetrachloroethane	100		110		64-130	10		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	98		100		53-136	2		20
sec-Butylbenzene	99		100		70-130	1		20
tert-Butylbenzene	97		98		70-130	1		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	88		100		41-144	13		20
Hexachlorobutadiene	80		80		63-130	0		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	96		97		70-130	1		20
Naphthalene	84		93		70-130	10		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	86		91		70-130	6		20
1,2,4-Trichlorobenzene	88		89		70-130	1		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	100		100		56-162	0		20
p-Diethylbenzene	93		95		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1198696-3 WG1198696-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	88		89		70-130	1		20
Ethyl ether	86		91		59-134	6		20
trans-1,4-Dichloro-2-butene	96		100		70-130	4		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	97		99		70-130
Toluene-d8	101		102		70-130
4-Bromofluorobenzene	96		93		70-130
Dibromofluoromethane	99		97		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1198696-6 WG1198696-7 QC Sample: L1901865-02 Client ID: RMW04_011519												
Methylene chloride	ND	10	9.1	91		9.1	91		70-130	0		20
1,1-Dichloroethane	ND	10	9.9	99		10	100		70-130	1		20
Chloroform	ND	10	10	100		10	100		70-130	0		20
Carbon tetrachloride	ND	10	10	100		10	100		63-132	0		20
1,2-Dichloropropane	ND	10	9.9	99		10	100		70-130	1		20
Dibromochloromethane	ND	10	10	100		10	100		63-130	0		20
1,1,2-Trichloroethane	ND	10	10	100		11	110		70-130	10		20
Tetrachloroethene	ND	10	10	100		10	100		70-130	0		20
Chlorobenzene	ND	10	10	100		10	100		75-130	0		20
Trichlorofluoromethane	ND	10	8.1	81		7.9	79		62-150	2		20
1,2-Dichloroethane	ND	10	9.8	98		9.9	99		70-130	1		20
1,1,1-Trichloroethane	ND	10	10	100		10	100		67-130	0		20
Bromodichloromethane	ND	10	9.7	97		9.8	98		67-130	1		20
trans-1,3-Dichloropropene	ND	10	9.4	94		9.6	96		70-130	2		20
cis-1,3-Dichloropropene	ND	10	9.0	90		8.9	89		70-130	1		20
1,1-Dichloropropene	ND	10	9.9	99		9.8	98		70-130	1		20
Bromoform	ND	10	9.4	94		9.6	96		54-136	2		20
1,1,2,2-Tetrachloroethane	ND	10	10	100		11	110		67-130	10		20
Benzene	0.49J	10	10	100		9.9	99		70-130	1		20
Toluene	ND	10	11	110		11	110		70-130	0		20
Ethylbenzene	ND	10	11	110		11	110		70-130	0		20
Chloromethane	ND	10	5.1	51	Q	4.8	48	Q	64-130	6		20
Bromomethane	ND	10	1.2J	12	Q	1.2J	12	Q	39-139	0		20

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1198696-6 WG1198696-7 QC Sample: L1901865-02 Client ID: RMW04_011519												
Vinyl chloride	ND	10	8.2	82		7.6	76		55-140	8		20
Chloroethane	ND	10	10	100		9.7	97		55-138	3		20
1,1-Dichloroethene	ND	10	8.6	86		8.5	85		61-145	1		20
trans-1,2-Dichloroethene	ND	10	9.3	93		9.3	93		70-130	0		20
Trichloroethene	ND	10	10	100		9.7	97		70-130	3		20
1,2-Dichlorobenzene	ND	10	9.9	99		10	100		70-130	1		20
1,3-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
1,4-Dichlorobenzene	ND	10	10	100		10	100		70-130	0		20
Methyl tert butyl ether	ND	10	9.5	95		9.8	98		63-130	3		20
p/m-Xylene	ND	20	22	110		22	110		70-130	0		20
o-Xylene	ND	20	21	105		22	110		70-130	5		20
cis-1,2-Dichloroethene	ND	10	9.9	99		9.7	97		70-130	2		20
Dibromomethane	ND	10	9.6	96		9.4	94		70-130	2		20
1,2,3-Trichloropropane	ND	10	11	110		11	110		64-130	0		20
Acrylonitrile	ND	10	10	100		10	100		70-130	0		20
Styrene	ND	20	19	95		19	95		70-130	0		20
Dichlorodifluoromethane	ND	10	5.7	57		5.6	56		36-147	2		20
Acetone	ND	10	9.0	90		9.9	99		58-148	10		20
Carbon disulfide	ND	10	8.4	84		8.2	82		51-130	2		20
2-Butanone	ND	10	9.0	90		9.3	93		63-138	3		20
Vinyl acetate	ND	10	11	110		10	100		70-130	10		20
4-Methyl-2-pentanone	ND	10	9.4	94		10	100		59-130	6		20
2-Hexanone	ND	10	8.4	84		9.4	94		57-130	11		20

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1198696-6 WG1198696-7 QC Sample: L1901865-02 Client ID: RMW04_011519												
Bromochloromethane	ND	10	9.6	96		10	100		70-130	4		20
2,2-Dichloropropane	ND	10	8.1	81		7.9	79		63-133	2		20
1,2-Dibromoethane	ND	10	9.9	99		10	100		70-130	1		20
1,3-Dichloropropane	ND	10	10	100		11	110		70-130	10		20
1,1,1,2-Tetrachloroethane	ND	10	10	100		11	110		64-130	10		20
Bromobenzene	ND	10	9.8	98		10	100		70-130	2		20
n-Butylbenzene	ND	10	10	100		10	100		53-136	0		20
sec-Butylbenzene	ND	10	11	110		11	110		70-130	0		20
tert-Butylbenzene	ND	10	10	100		10	100		70-130	0		20
o-Chlorotoluene	ND	10	8.6	86		8.7	87		70-130	1		20
p-Chlorotoluene	ND	10	10	100		10	100		70-130	0		20
1,2-Dibromo-3-chloropropane	ND	10	9.2	92		9.5	95		41-144	3		20
Hexachlorobutadiene	ND	10	8.8	88		8.1	81		63-130	8		20
Isopropylbenzene	ND	10	11	110		11	110		70-130	0		20
p-Isopropyltoluene	ND	10	10	100		10	100		70-130	0		20
Naphthalene	2.8	10	12	92		13	102		70-130	8		20
n-Propylbenzene	ND	10	11	110		11	110		69-130	0		20
1,2,3-Trichlorobenzene	ND	10	8.8	88		9.2	92		70-130	4		20
1,2,4-Trichlorobenzene	ND	10	9.0	90		8.9	89		70-130	1		20
1,3,5-Trimethylbenzene	ND	10	10	100		10	100		64-130	0		20
1,2,4-Trimethylbenzene	ND	10	11	110		11	110		70-130	0		20
1,4-Dioxane	ND	500	500	100		590	118		56-162	17		20
p-Diethylbenzene	ND	10	10	100		9.8	98		70-130	2		20

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1198696-6 WG1198696-7 QC Sample: L1901865-02 Client ID: RMW04_011519												
p-Ethyltoluene	ND	10	11	110		11	110		70-130	0		20
1,2,4,5-Tetramethylbenzene	ND	10	9.5	95		9.5	95		70-130	0		20
Ethyl ether	ND	10	8.8	88		8.8	88		59-134	0		20
trans-1,4-Dichloro-2-butene	ND	10	6.6	66	Q	5.8	58	Q	70-130	13		20

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
1,2-Dichloroethane-d4	99		98		70-130
4-Bromofluorobenzene	94		94		70-130
Dibromofluoromethane	99		96		70-130
Toluene-d8	103		102		70-130

SEMIVOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-01
 Client ID: RMW03_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 15:30
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/18/19 16:48
 Analyst: SZ

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 00:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	2.0	J	ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-01
 Client ID: RMW03_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 15:30
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	0.85	J	ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		21-120
Phenol-d6	53		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	82		15-120
2,4,6-Tribromophenol	107		10-120
4-Terphenyl-d14	79		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-01
 Client ID: RMW03_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 15:30
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/20/19 13:29
 Analyst: CB

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 00:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	33		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	2.8		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	18		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.22		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.20		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.16		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.05	J	ug/l	0.10	0.01	1
Chrysene	0.19		ug/l	0.10	0.01	1
Acenaphthylene	1.4		ug/l	0.10	0.01	1
Anthracene	0.61		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.14		ug/l	0.10	0.01	1
Fluorene	0.90		ug/l	0.10	0.01	1
Phenanthrene	0.53		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.02	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.08	J	ug/l	0.10	0.01	1
Pyrene	2.7		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	0.31	J	ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-01
 Client ID: RMW03_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 15:30
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	48		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	71		15-120
2,4,6-Tribromophenol	90		10-120
4-Terphenyl-d14	77		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-02
 Client ID: RMW04_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 13:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/18/19 17:16
 Analyst: SZ

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 00:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	2.1	J	ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-02
 Client ID: RMW04_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 13:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		21-120
Phenol-d6	51		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	82		15-120
2,4,6-Tribromophenol	84		10-120
4-Terphenyl-d14	76		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-02
 Client ID: RMW04_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 13:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/18/19 17:05
 Analyst: JJW

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 00:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	3.3		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.57		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	3.3		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.18		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.18		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.21		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.07	J	ug/l	0.10	0.01	1
Chrysene	0.15		ug/l	0.10	0.01	1
Acenaphthylene	0.23		ug/l	0.10	0.01	1
Anthracene	0.21		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.15		ug/l	0.10	0.01	1
Fluorene	0.46		ug/l	0.10	0.01	1
Phenanthrene	0.84		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.04	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.11		ug/l	0.10	0.01	1
Pyrene	0.87		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.30		ug/l	0.10	0.02	1
Pentachlorophenol	9.2		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19**SAMPLE RESULTS**

Lab ID: L1901865-02

Date Collected: 01/15/19 13:00

Client ID: RMW04_011519

Date Received: 01/15/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		21-120
Phenol-d6	47		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	73		15-120
2,4,6-Tribromophenol	73		10-120
4-Terphenyl-d14	78		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-03
 Client ID: RMW05_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 11:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/18/19 17:43
 Analyst: SZ

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 00:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-03
 Client ID: RMW05_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 11:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	73		21-120
Phenol-d6	59		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	90		15-120
2,4,6-Tribromophenol	112		10-120
4-Terphenyl-d14	77		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-03
 Client ID: RMW05_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 11:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/20/19 13:53
 Analyst: CB

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 00:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	4.8		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.85		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.40		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.25		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.26		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.28		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.09	J	ug/l	0.10	0.01	1
Chrysene	0.20		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.27		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.17		ug/l	0.10	0.01	1
Fluorene	0.39		ug/l	0.10	0.01	1
Phenanthrene	0.94		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.04	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.15		ug/l	0.10	0.01	1
Pyrene	0.96		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.15		ug/l	0.10	0.02	1
Pentachlorophenol	0.22	J	ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-03
 Client ID: RMW05_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 11:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		21-120
Phenol-d6	55		10-120
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	79		15-120
2,4,6-Tribromophenol	95		10-120
4-Terphenyl-d14	75		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-04
 Client ID: GWDUP01_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 00:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/18/19 18:10
 Analyst: SZ

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 00:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-04
 Client ID: GWDUP01_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 00:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		21-120
Phenol-d6	57		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	80		15-120
2,4,6-Tribromophenol	103		10-120
4-Terphenyl-d14	85		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-04
 Client ID: GWDUP01_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 00:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/18/19 17:29
 Analyst: JJW

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 00:18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	32		ug/l	0.10	0.01	1
2-Chloronaphthalene	0.04	J	ug/l	0.20	0.02	1
Fluoranthene	2.5		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	19		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.14		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.09	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.08	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.03	J	ug/l	0.10	0.01	1
Chrysene	0.12		ug/l	0.10	0.01	1
Acenaphthylene	1.3		ug/l	0.10	0.01	1
Anthracene	0.59		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.07	J	ug/l	0.10	0.01	1
Fluorene	0.83		ug/l	0.10	0.01	1
Phenanthrene	0.50		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.02	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.05	J	ug/l	0.10	0.01	1
Pyrene	2.3		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.26		ug/l	0.10	0.02	1
Pentachlorophenol	0.21	J	ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-04
 Client ID: GWDUP01_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 00:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		21-120
Phenol-d6	52		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	83		10-120
4-Terphenyl-d14	75		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/18/19 12:47
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 00:10

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1198362-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/18/19 12:47
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 00:10

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1198362-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 01/18/19 12:47
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 00:10

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1198362-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	79		15-120
2,4,6-Tribromophenol	41		10-120
4-Terphenyl-d14	82		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 01/18/19 14:44
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 00:18

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-04 Batch: WG1198363-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	0.18	J	ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
 Analytical Date: 01/18/19 14:44
 Analyst: JJW

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 00:18

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-04 Batch: WG1198363-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	56		10-120
4-Terphenyl-d14	86		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1198362-2 WG1198362-3								
Acenaphthene	83		77		37-111	8		30
1,2,4-Trichlorobenzene	78		75		39-98	4		30
Hexachlorobenzene	84		76		40-140	10		30
Bis(2-chloroethyl)ether	78		77		40-140	1		30
2-Chloronaphthalene	81		78		40-140	4		30
1,2-Dichlorobenzene	74		72		40-140	3		30
1,3-Dichlorobenzene	72		70		40-140	3		30
1,4-Dichlorobenzene	73		71		36-97	3		30
3,3'-Dichlorobenzidine	42		69		40-140	49	Q	30
2,4-Dinitrotoluene	84		74		48-143	13		30
2,6-Dinitrotoluene	85		77		40-140	10		30
Fluoranthene	90		79		40-140	13		30
4-Chlorophenyl phenyl ether	84		79		40-140	6		30
4-Bromophenyl phenyl ether	88		81		40-140	8		30
Bis(2-chloroisopropyl)ether	74		73		40-140	1		30
Bis(2-chloroethoxy)methane	86		79		40-140	8		30
Hexachlorobutadiene	78		77		40-140	1		30
Hexachlorocyclopentadiene	66		67		40-140	2		30
Hexachloroethane	72		72		40-140	0		30
Isophorone	90		84		40-140	7		30
Naphthalene	77		75		40-140	3		30
Nitrobenzene	79		76		40-140	4		30
NDPA/DPA	86		83		40-140	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1198362-2 WG1198362-3								
n-Nitrosodi-n-propylamine	96		90		29-132	6		30
Bis(2-ethylhexyl)phthalate	91		90		40-140	1		30
Butyl benzyl phthalate	84		81		40-140	4		30
Di-n-butylphthalate	87		77		40-140	12		30
Di-n-octylphthalate	85		85		40-140	0		30
Diethyl phthalate	94		83		40-140	12		30
Dimethyl phthalate	92		83		40-140	10		30
Benzo(a)anthracene	94		87		40-140	8		30
Benzo(a)pyrene	89		81		40-140	9		30
Benzo(b)fluoranthene	91		82		40-140	10		30
Benzo(k)fluoranthene	97		84		40-140	14		30
Chrysene	89		79		40-140	12		30
Acenaphthylene	86		79		45-123	8		30
Anthracene	88		81		40-140	8		30
Benzo(ghi)perylene	91		84		40-140	8		30
Fluorene	88		80		40-140	10		30
Phenanthrene	84		74		40-140	13		30
Dibenzo(a,h)anthracene	91		82		40-140	10		30
Indeno(1,2,3-cd)pyrene	86		82		40-140	5		30
Pyrene	86		75		26-127	14		30
Biphenyl	88		81		40-140	8		30
4-Chloroaniline	43		65		40-140	41	Q	30
2-Nitroaniline	83		76		52-143	9		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1198362-2 WG1198362-3								
3-Nitroaniline	66		71		25-145	7		30
4-Nitroaniline	76		74		51-143	3		30
Dibenzofuran	82		77		40-140	6		30
2-Methylnaphthalene	84		77		40-140	9		30
1,2,4,5-Tetrachlorobenzene	81		77		2-134	5		30
Acetophenone	89		85		39-129	5		30
2,4,6-Trichlorophenol	79		76		30-130	4		30
p-Chloro-m-cresol	87		81		23-97	7		30
2-Chlorophenol	80		78		27-123	3		30
2,4-Dichlorophenol	81		78		30-130	4		30
2,4-Dimethylphenol	29	Q	78		30-130	92	Q	30
2-Nitrophenol	79		74		30-130	7		30
4-Nitrophenol	67		62		10-80	8		30
2,4-Dinitrophenol	70		68		20-130	3		30
4,6-Dinitro-o-cresol	77		70		20-164	10		30
Pentachlorophenol	80		77		9-103	4		30
Phenol	62		61		12-110	2		30
2-Methylphenol	69		78		30-130	12		30
3-Methylphenol/4-Methylphenol	79		77		30-130	3		30
2,4,5-Trichlorophenol	84		75		30-130	11		30
Benzoic Acid	65		66		10-164	2		30
Benzyl Alcohol	84		82		26-116	2		30
Carbazole	91		81		55-144	12		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1198362-2 WG1198362-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	67		69		21-120
Phenol-d6	60		60		10-120
Nitrobenzene-d5	81		79		23-120
2-Fluorobiphenyl	82		78		15-120
2,4,6-Tribromophenol	75		75		10-120
4-Terphenyl-d14	85		72		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 Batch: WG1198363-2 WG1198363-3								
Acenaphthene	73		78		40-140	7		40
2-Chloronaphthalene	70		74		40-140	6		40
Fluoranthene	84		89		40-140	6		40
Hexachlorobutadiene	70		74		40-140	6		40
Naphthalene	73		77		40-140	5		40
Benzo(a)anthracene	86		91		40-140	6		40
Benzo(a)pyrene	95		100		40-140	5		40
Benzo(b)fluoranthene	93		100		40-140	7		40
Benzo(k)fluoranthene	94		98		40-140	4		40
Chrysene	81		87		40-140	7		40
Acenaphthylene	79		84		40-140	6		40
Anthracene	86		91		40-140	6		40
Benzo(ghi)perylene	88		95		40-140	8		40
Fluorene	77		81		40-140	5		40
Phenanthrene	80		86		40-140	7		40
Dibenzo(a,h)anthracene	91		98		40-140	7		40
Indeno(1,2,3-cd)pyrene	92		99		40-140	7		40
Pyrene	82		88		40-140	7		40
2-Methylnaphthalene	72		77		40-140	7		40
Pentachlorophenol	72		77		40-140	7		40
Hexachlorobenzene	75		80		40-140	6		40
Hexachloroethane	74		76		40-140	3		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 Batch: WG1198363-2 WG1198363-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> <i>Criteria</i>
2-Fluorophenol	65		67		21-120
Phenol-d6	54		56		10-120
Nitrobenzene-d5	84		88		23-120
2-Fluorobiphenyl	71		76		15-120
2,4,6-Tribromophenol	80		79		10-120
4-Terphenyl-d14	74		80		41-149

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1198362-4 WG1198362-5 QC Sample: L1901865-02 Client ID: RMW04_011519												
1,2,4-Trichlorobenzene	ND	18.2	15	83		14	77		39-98	7		30
Bis(2-chloroethyl)ether	ND	18.2	15	83		15	83		40-140	0		30
1,2-Dichlorobenzene	ND	18.2	14	77		14	77		40-140	0		30
1,3-Dichlorobenzene	ND	18.2	13	72		13	72		40-140	0		30
1,4-Dichlorobenzene	ND	18.2	14	77		14	77		36-97	0		30
3,3'-Dichlorobenzidine	ND	18.2	3.2J	18	Q	3.5J	19	Q	40-140	9		30
2,4-Dinitrotoluene	ND	18.2	16	88		15	83		48-143	6		30
2,6-Dinitrotoluene	ND	18.2	16	88		15	83		40-140	6		30
4-Chlorophenyl phenyl ether	ND	18.2	15	83		15	83		40-140	0		30
4-Bromophenyl phenyl ether	ND	18.2	17	94		15	83		40-140	13		30
Bis(2-chloroisopropyl)ether	ND	18.2	14	77		14	77		40-140	0		30
Bis(2-chloroethoxy)methane	ND	18.2	16	88		16	88		40-140	0		30
Hexachlorocyclopentadiene	ND	18.2	14.J	77		13.J	72		40-140	7		30
Isophorone	ND	18.2	17	94		17	94		40-140	0		30
Nitrobenzene	ND	18.2	15	83		15	83		40-140	0		30
NDPA/DPA	ND	18.2	16	88		15	83		40-140	6		30
n-Nitrosodi-n-propylamine	ND	18.2	18	99		17	94		29-132	6		30
Bis(2-ethylhexyl)phthalate	2.1J	18.2	18	99		18	99		40-140	0		30
Butyl benzyl phthalate	ND	18.2	19	100		18	99		40-140	5		30
Di-n-butylphthalate	ND	18.2	17	94		16	88		40-140	6		30
Di-n-octylphthalate	ND	18.2	19	100		18	99		40-140	5		30
Diethyl phthalate	ND	18.2	17	94		16	88		40-140	6		30
Dimethyl phthalate	ND	18.2	17	94		16	88		40-140	6		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1198362-4 WG1198362-5 QC Sample: L1901865-02 Client ID: RMW04_011519												
Biphenyl	ND	18.2	16	88		16	88		40-140	0		30
4-Chloroaniline	ND	18.2	7.3	40		7.2	40		40-140	1		30
2-Nitroaniline	ND	18.2	16	88		16	88		52-143	0		30
3-Nitroaniline	ND	18.2	9.4	52		9.7	53		25-145	3		30
4-Nitroaniline	ND	18.2	14	77		13	72		51-143	7		30
Dibenzofuran	ND	18.2	15	83		15	83		40-140	0		30
1,2,4,5-Tetrachlorobenzene	ND	18.2	15	83		15	83		2-134	0		30
Acetophenone	ND	18.2	17	94		17	94		39-129	0		30
2,4,6-Trichlorophenol	ND	18.2	16	88		16	88		30-130	0		30
p-Chloro-m-cresol	ND	18.2	17	94		16	88		23-97	6		30
2-Chlorophenol	ND	18.2	15	83		15	83		27-123	0		30
2,4-Dichlorophenol	ND	18.2	16	88		15	83		30-130	6		30
2,4-Dimethylphenol	ND	18.2	7.4	41		6.2	34		30-130	18		30
2-Nitrophenol	ND	18.2	15	83		15	83		30-130	0		30
4-Nitrophenol	ND	18.2	14	77		14	77		10-80	0		30
2,4-Dinitrophenol	ND	18.2	16.J	88		16.J	88		20-130	0		30
4,6-Dinitro-o-cresol	ND	18.2	16	88		14	77		20-164	13		30
Phenol	ND	18.2	12	66		12	66		12-110	0		30
2-Methylphenol	ND	18.2	14	77		13	72		30-130	7		30
3-Methylphenol/4-Methylphenol	ND	18.2	15	83		15	83		30-130	0		30
2,4,5-Trichlorophenol	ND	18.2	16	88		16	88		30-130	0		30
Benzoic Acid	ND	18.2	18.J	99		18.J	99		10-164	0		30
Benzyl Alcohol	ND	18.2	17	94		17	94		26-116	0		30

Matrix Spike Analysis**Batch Quality Control****Project Name:** GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1198362-4 WG1198362-5 QC Sample: L1901865-02 Client ID: RMW04_011519												
Carbazole	ND	18.2	17	94		16	88		55-144	6		30

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
2,4,6-Tribromophenol	82		76		10-120
2-Fluorobiphenyl	87		82		15-120
2-Fluorophenol	73		73		21-120
4-Terphenyl-d14	86		79		41-149
Nitrobenzene-d5	85		82		23-120
Phenol-d6	66		65		10-120

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1198363-4 WG1198363-5 QC Sample: L1901865-02 Client ID: RMW04_011519												
Acenaphthene	3.3	18.2	20	92		19	86		40-140	5		40
2-Chloronaphthalene	ND	18.2	16	88		15	83		40-140	6		40
Fluoranthene	0.57	18.2	19	100		18	96		40-140	5		40
Hexachlorobutadiene	ND	18.2	15	83		15	83		40-140	0		40
Naphthalene	3.3	18.2	20	92		19	86		40-140	5		40
Benzo(a)anthracene	0.18	18.2	19	100		18	98		40-140	5		40
Benzo(a)pyrene	0.18	18.2	20	110		19	100		40-140	5		40
Benzo(b)fluoranthene	0.21	18.2	19	100		18	98		40-140	5		40
Benzo(k)fluoranthene	0.07J	18.2	20	110		19	100		40-140	5		40
Chrysene	0.15	18.2	18	98		17	93		40-140	6		40
Acenaphthylene	0.23	18.2	18	98		17	92		40-140	6		40
Anthracene	0.21	18.2	19	100		18	98		40-140	5		40
Benzo(ghi)perylene	0.15	18.2	21	110		20	110		40-140	5		40
Fluorene	0.46	18.2	17	91		16	85		40-140	6		40
Phenanthrene	0.84	18.2	19	100		18	94		40-140	5		40
Dibenzo(a,h)anthracene	0.04J	18.2	21	120		20	110		40-140	5		40
Indeno(1,2,3-cd)pyrene	0.11	18.2	22	120		21	110		40-140	5		40
Pyrene	0.87	18.2	19	100		18	94		40-140	5		40
2-Methylnaphthalene	0.30	18.2	16	86		15	81		40-140	6		40
Pentachlorophenol	9.2	18.2	28	100		26	92		40-140	7		40
Hexachlorobenzene	ND	18.2	16	88		16	88		40-140	0		40
Hexachloroethane	ND	18.2	16	88		15	83		40-140	6		40

Matrix Spike Analysis**Batch Quality Control****Project Name:** GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Semivolatiles Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1198363-4 WG1198363-5 QC Sample: L1901865-02
Client ID: RMW04_011519

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
2,4,6-Tribromophenol	91		84		10-120
2-Fluorobiphenyl	85		81		15-120
2-Fluorophenol	77		74		21-120
4-Terphenyl-d14	87		80		41-149
Nitrobenzene-d5	91		87		23-120
Phenol-d6	66		64		10-120

PCBS

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-01
Client ID: RMW03_011519
Sample Location: BRONX, NY

Date Collected: 01/15/19 15:30
Date Received: 01/15/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 01/20/19 21:04
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 04:01
Cleanup Method: EPA 3665A
Cleanup Date: 01/17/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/18/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	91		30-150	B
Decachlorobiphenyl	101		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-02
Client ID: RMW04_011519
Sample Location: BRONX, NY

Date Collected: 01/15/19 13:00
Date Received: 01/15/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 01/20/19 23:19
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 04:01
Cleanup Method: EPA 3665A
Cleanup Date: 01/17/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/18/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-03
Client ID: RMW05_011519
Sample Location: BRONX, NY

Date Collected: 01/15/19 11:00
Date Received: 01/15/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 01/20/19 21:17
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 04:01
Cleanup Method: EPA 3665A
Cleanup Date: 01/17/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/18/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	A
Decachlorobiphenyl	88		30-150	A
2,4,5,6-Tetrachloro-m-xylene	94		30-150	B
Decachlorobiphenyl	98		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-04
Client ID: GWDUP01_011519
Sample Location: BRONX, NY

Date Collected: 01/15/19 00:00
Date Received: 01/15/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 01/22/19 11:35
Analyst: AWS

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 04:01
Cleanup Method: EPA 3665A
Cleanup Date: 01/17/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/18/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	95		30-150	A
2,4,5,6-Tetrachloro-m-xylene	107		30-150	B
Decachlorobiphenyl	118		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8082A
Analytical Date: 01/21/19 00:41
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 04:01
Cleanup Method: EPA 3665A
Cleanup Date: 01/17/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/18/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-04 Batch: WG1198386-1						
Aroclor 1016	ND		ug/l	0.082	0.034	A
Aroclor 1221	ND		ug/l	0.082	0.066	A
Aroclor 1232	ND		ug/l	0.082	0.045	A
Aroclor 1242	ND		ug/l	0.082	0.038	A
Aroclor 1248	ND		ug/l	0.082	0.048	A
Aroclor 1254	ND		ug/l	0.082	0.039	A
Aroclor 1260	ND		ug/l	0.082	0.032	A
Aroclor 1262	ND		ug/l	0.082	0.034	A
Aroclor 1268	ND		ug/l	0.082	0.033	A
PCBs, Total	ND		ug/l	0.082	0.032	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	70		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	82		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-04 Batch: WG1198386-2 WG1198386-3									
Aroclor 1016	75		66		40-140	13		50	A
Aroclor 1260	79		71		40-140	11		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		76		30-150	A
Decachlorobiphenyl	100		83		30-150	A
2,4,5,6-Tetrachloro-m-xylene	88		80		30-150	B
Decachlorobiphenyl	99		90		30-150	B



Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1198386-4 WG1198386-5 QC Sample: L1901865-02 Client ID: RMW04_011519													
Aroclor 1016	ND	1.78	1.48	83		1.25	70		40-140	17		50	A
Aroclor 1260	ND	1.78	1.29	72		1.16	65		40-140	11		50	A

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
2,4,5,6-Tetrachloro-m-xylene	83		71		30-150	A
Decachlorobiphenyl	67		58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	90		76		30-150	B
Decachlorobiphenyl	73		63		30-150	B

PESTICIDES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-01
 Client ID: RMW03_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 15:30
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/19/19 12:41
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/18/19 02:10

Methylation Date: 01/18/19 15:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	B
2,4,5-T	ND		ug/l	2.00	0.531	1	B
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	91		30-150	A
DCAA	77		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-01 D
 Client ID: RMW03_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 15:30
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/21/19 22:13
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/16/19 16:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.143	0.033	10	A
Lindane	ND		ug/l	0.143	0.031	10	A
Alpha-BHC	ND		ug/l	0.143	0.031	10	A
Beta-BHC	ND		ug/l	0.143	0.040	10	A
Heptachlor	ND		ug/l	0.143	0.022	10	A
Aldrin	ND		ug/l	0.143	0.015	10	A
Heptachlor epoxide	ND		ug/l	0.143	0.030	10	A
Endrin	ND		ug/l	0.286	0.031	10	A
Endrin aldehyde	ND		ug/l	0.286	0.058	10	A
Endrin ketone	ND		ug/l	0.286	0.034	10	A
Dieldrin	ND		ug/l	0.286	0.031	10	A
4,4'-DDE	ND		ug/l	0.286	0.027	10	A
4,4'-DDD	ND		ug/l	0.286	0.033	10	A
4,4'-DDT	ND		ug/l	0.286	0.031	10	A
Endosulfan I	ND		ug/l	0.143	0.025	10	A
Endosulfan II	ND		ug/l	0.286	0.037	10	A
Endosulfan sulfate	ND		ug/l	0.286	0.034	10	A
Methoxychlor	ND		ug/l	1.43	0.049	10	A
Toxaphene	ND		ug/l	1.43	0.448	10	A
cis-Chlordane	ND		ug/l	0.143	0.048	10	A
trans-Chlordane	ND		ug/l	0.143	0.045	10	A
Chlordane	ND		ug/l	1.43	0.331	10	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19**SAMPLE RESULTS**

Lab ID: L1901865-01 D

Date Collected: 01/15/19 15:30

Client ID: RMW03_011519

Date Received: 01/15/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	116		30-150	B
Decachlorobiphenyl	128		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-02
 Client ID: RMW04_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 13:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/22/19 11:30
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/22/19 01:21

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-02
 Client ID: RMW04_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 13:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	99		30-150	A
Decachlorobiphenyl	53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	96		30-150	B
Decachlorobiphenyl	70		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-02
 Client ID: RMW04_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 13:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/19/19 11:44
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/18/19 02:10

Methylation Date: 01/18/19 15:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	B
2,4,5-T	ND		ug/l	2.00	0.531	1	B
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	91		30-150	A
DCAA	83		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-03
 Client ID: RMW05_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 11:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/19/19 13:00
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/18/19 02:10

Methylation Date: 01/18/19 15:30

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	B
2,4,5-T	ND		ug/l	2.00	0.531	1	B
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	77		30-150	A
DCAA	68		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-03 D
 Client ID: RMW05_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 11:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/21/19 22:25
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/16/19 16:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.714	0.167	50	A
Lindane	ND		ug/l	0.714	0.155	50	A
Alpha-BHC	ND		ug/l	0.714	0.157	50	A
Beta-BHC	ND		ug/l	0.714	0.200	50	A
Heptachlor	ND		ug/l	0.714	0.111	50	A
Aldrin	ND		ug/l	0.714	0.077	50	A
Heptachlor epoxide	ND		ug/l	0.714	0.148	50	A
Endrin	ND		ug/l	1.43	0.153	50	A
Endrin aldehyde	ND		ug/l	1.43	0.289	50	A
Endrin ketone	ND		ug/l	1.43	0.170	50	A
Dieldrin	ND		ug/l	1.43	0.153	50	A
4,4'-DDE	ND		ug/l	1.43	0.136	50	A
4,4'-DDD	ND		ug/l	1.43	0.166	50	A
4,4'-DDT	ND		ug/l	1.43	0.154	50	A
Endosulfan I	ND		ug/l	0.714	0.123	50	A
Endosulfan II	ND		ug/l	1.43	0.185	50	A
Endosulfan sulfate	ND		ug/l	1.43	0.172	50	A
Methoxychlor	ND		ug/l	7.14	0.244	50	A
Toxaphene	ND		ug/l	7.14	2.24	50	A
cis-Chlordane	ND		ug/l	0.714	0.238	50	A
trans-Chlordane	ND		ug/l	0.714	0.224	50	A
Chlordane	ND		ug/l	7.14	1.65	50	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-03 D
 Client ID: RMW05_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 11:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-04
 Client ID: GWDUP01_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 00:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/19/19 20:46
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/18/19 02:10

Methylation Date: 01/19/19 07:53

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	B
2,4,5-T	ND		ug/l	2.00	0.531	1	B
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	108		30-150	A
DCAA	92		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-04 D
 Client ID: GWDUP01_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 00:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/21/19 22:38
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/16/19 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.071	0.017	5	A
Lindane	ND		ug/l	0.071	0.016	5	A
Alpha-BHC	ND		ug/l	0.071	0.016	5	A
Beta-BHC	ND		ug/l	0.071	0.020	5	A
Heptachlor	ND		ug/l	0.071	0.011	5	A
Aldrin	ND		ug/l	0.071	0.008	5	A
Heptachlor epoxide	ND		ug/l	0.071	0.015	5	A
Endrin	ND		ug/l	0.143	0.015	5	A
Endrin aldehyde	ND		ug/l	0.143	0.029	5	A
Endrin ketone	ND		ug/l	0.143	0.017	5	A
Dieldrin	ND		ug/l	0.143	0.015	5	A
4,4'-DDE	ND		ug/l	0.143	0.014	5	A
4,4'-DDD	ND		ug/l	0.143	0.017	5	A
4,4'-DDT	ND		ug/l	0.143	0.015	5	A
Endosulfan I	ND		ug/l	0.071	0.012	5	A
Endosulfan II	ND		ug/l	0.143	0.019	5	A
Endosulfan sulfate	ND		ug/l	0.143	0.017	5	A
Methoxychlor	ND		ug/l	0.714	0.024	5	A
Toxaphene	ND		ug/l	0.714	0.224	5	A
cis-Chlordane	ND		ug/l	0.071	0.024	5	A
trans-Chlordane	ND		ug/l	0.071	0.022	5	A
Chlordane	ND		ug/l	0.714	0.165	5	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19**SAMPLE RESULTS**

Lab ID: L1901865-04 D

Date Collected: 01/15/19 00:00

Client ID: GWDUP01_011519

Date Received: 01/15/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	30		30-150	A
Decachlorobiphenyl	31		30-150	A
2,4,5,6-Tetrachloro-m-xylene	54		30-150	B
Decachlorobiphenyl	63		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/17/19 22:13
Analyst: SL

Extraction Method: EPA 3510C
Extraction Date: 01/16/19 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01,03-04 Batch: WG1198266-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	ND		ug/l	0.014	0.002	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Endrin ketone	ND		ug/l	0.029	0.003	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
4,4'-DDT	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
 Analytical Date: 01/17/19 22:13
 Analyst: SL

Extraction Method: EPA 3510C
 Extraction Date: 01/16/19 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01,03-04 Batch: WG1198266-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	91		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	98		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8151A
 Analytical Date: 01/19/19 14:10
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/17/19 08:10

Methylation Date: 01/17/19 17:55

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-04 Batch: WG1198737-1						
2,4-D	ND		ug/l	10.0	0.498	B
2,4,5-T	ND		ug/l	2.00	0.531	B
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	B

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	6	Q	30-150	A
DCAA	30		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/22/19 10:52
Analyst: BM

Extraction Method: EPA 3510C
Extraction Date: 01/21/19 18:00

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 02 Batch: WG1199589-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	ND		ug/l	0.014	0.002	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Endrin ketone	ND		ug/l	0.029	0.003	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
4,4'-DDT	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
 Analytical Date: 01/22/19 10:52
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/21/19 18:00

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 02 Batch: WG1199589-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	A
Decachlorobiphenyl	74		30-150	A
2,4,5,6-Tetrachloro-m-xylene	94		30-150	B
Decachlorobiphenyl	90		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03-04 Batch: WG1198266-2 WG1198266-3									
Delta-BHC	92		85		30-150	9		20	A
Lindane	93		85		30-150	9		20	A
Alpha-BHC	99		89		30-150	11		20	A
Beta-BHC	88		79		30-150	11		20	A
Heptachlor	94		85		30-150	11		20	A
Aldrin	92		82		30-150	11		20	A
Heptachlor epoxide	98		89		30-150	10		20	A
Endrin	102		91		30-150	11		20	A
Endrin aldehyde	79		75		30-150	5		20	A
Endrin ketone	104		94		30-150	10		20	A
Dieldrin	108		99		30-150	8		20	A
4,4'-DDE	101		91		30-150	10		20	A
4,4'-DDD	99		89		30-150	12		20	A
4,4'-DDT	106		94		30-150	12		20	A
Endosulfan I	93		85		30-150	9		20	A
Endosulfan II	94		86		30-150	9		20	A
Endosulfan sulfate	92		83		30-150	9		20	A
Methoxychlor	120		106		30-150	12		20	A
cis-Chlordane	52		80		30-150	42	Q	20	A
trans-Chlordane	95		85		30-150	11		20	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03-04 Batch: WG1198266-2 WG1198266-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	78		69		30-150	A
Decachlorobiphenyl	101		82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		73		30-150	B
Decachlorobiphenyl	104		87		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-04 Batch: WG1198737-2 WG1198737-3									
2,4-D	42		44		30-150	5		25	B
2,4,5-T	58		55		30-150	5		25	B
2,4,5-TP (Silvex)	53		48		30-150	10		25	B

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	12	Q	20	Q	30-150	A
DCAA	34		41		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02 Batch: WG1199589-2 WG1199589-3									
Delta-BHC	83		87		30-150	5		20	A
Lindane	81		85		30-150	4		20	A
Alpha-BHC	85		90		30-150	5		20	A
Beta-BHC	91		97		30-150	6		20	A
Heptachlor	79		87		30-150	10		20	A
Aldrin	75		85		30-150	12		20	A
Heptachlor epoxide	91		95		30-150	5		20	A
Endrin	87		91		30-150	5		20	A
Endrin aldehyde	77		78		30-150	0		20	A
Endrin ketone	91		95		30-150	4		20	A
Dieldrin	91		96		30-150	5		20	A
4,4'-DDE	83		90		30-150	8		20	A
4,4'-DDD	85		91		30-150	7		20	A
4,4'-DDT	88		89		30-150	2		20	A
Endosulfan I	84		85		30-150	1		20	A
Endosulfan II	83		88		30-150	6		20	A
Endosulfan sulfate	86		89		30-150	3		20	A
Methoxychlor	96		99		30-150	4		20	A
cis-Chlordane	76		81		30-150	7		20	A
trans-Chlordane	75		82		30-150	9		20	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02 Batch: WG1199589-2 WG1199589-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	78		84		30-150	A
Decachlorobiphenyl	74		75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		90		30-150	B
Decachlorobiphenyl	79		89		30-150	B

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1198737-4 WG1198737-5 QC Sample: L1901865-02 Client ID: RMW04_011519													
2,4-D	ND	5	4.19J	84		4.07J	81		30-150	3		25	B
2,4,5-T	ND	5	4.50	90		4.56	91		30-150	1		25	B
2,4,5-TP (Silvex)	ND	5	4.14	83		4.24	85		30-150	2		25	B

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
DCAA	91		97		30-150	A
DCAA	236	Q	227	Q	30-150	B



Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1199589-6 WG1199589-7 QC Sample: L1901865-02 Client ID: RMW04_011519													
Delta-BHC	ND	0.357	0.349	98		0.362	101		30-150	4		30	A
Lindane	ND	0.357	0.320	90		0.338	95		30-150	5		30	A
Alpha-BHC	ND	0.357	0.363	102		0.368	103		30-150	1		30	A
Beta-BHC	ND	0.357	0.328	92		0.349	98		30-150	6		30	A
Heptachlor	ND	0.357	0.328	92		0.336	94		30-150	2		30	A
Aldrin	ND	0.357	0.330	92		0.339	95		30-150	3		30	A
Heptachlor epoxide	ND	0.357	0.370	104		0.378	106		30-150	2		30	A
Endrin	ND	0.357	0.376	105		0.383	107		30-150	2		30	A
Endrin aldehyde	ND	0.357	0.335	94		0.344	96		30-150	3		30	A
Endrin ketone	ND	0.357	0.388	109		0.399	112		30-150	3		30	A
Dieldrin	ND	0.357	0.384	108		0.391	109		30-150	2		30	A
4,4'-DDE	ND	0.357	0.352	99		0.358	100		30-150	2		30	A
4,4'-DDD	ND	0.357	0.363	102		0.371	104		30-150	2		30	A
4,4'-DDT	ND	0.357	0.355	99		0.358	100		30-150	1		30	A
Endosulfan I	ND	0.357	0.343	96		0.353	99		30-150	3		30	A
Endosulfan II	ND	0.357	0.359	101		0.365	102		30-150	2		30	A
Endosulfan sulfate	ND	0.357	0.380	106		0.380	106		30-150	0		30	A
Methoxychlor	ND	0.357	0.408	114		0.425	119		30-150	4		30	A
cis-Chlordane	ND	0.357	0.330	92		0.332	93		30-150	1		30	A
trans-Chlordane	ND	0.357	0.329	92		0.337	94		30-150	2		30	A

Matrix Spike Analysis**Batch Quality Control****Project Name:** GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02 QC Batch ID: WG1199589-6 WG1199589-7 QC Sample: L1901865-02 Client ID: RMW04_011519

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
2,4,5,6-Tetrachloro-m-xylene	98		98		30-150	A
Decachlorobiphenyl	61		55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	96		97		30-150	B
Decachlorobiphenyl	76		69		30-150	B

METALS

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-01
 Client ID: RMW03_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 15:30
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.225		mg/l	0.0100	0.00327	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Antimony, Total	0.00067	J	mg/l	0.00400	0.00042	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00155		mg/l	0.00050	0.00016	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Barium, Total	0.4160		mg/l	0.00050	0.00017	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Calcium, Total	427.		mg/l	0.100	0.0394	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Chromium, Total	0.00294		mg/l	0.00100	0.00017	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00040	J	mg/l	0.00050	0.00016	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Copper, Total	0.00258		mg/l	0.00100	0.00038	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Iron, Total	0.984		mg/l	0.0500	0.0191	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Lead, Total	0.00777		mg/l	0.00100	0.00034	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Magnesium, Total	59.1		mg/l	0.0700	0.0242	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Manganese, Total	0.9509		mg/l	0.00100	0.00044	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/16/19 12:45	01/16/19 22:02	EPA 7470A	1,7470A	MG
Nickel, Total	0.00383		mg/l	0.00200	0.00055	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Potassium, Total	25.2		mg/l	0.100	0.0309	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Sodium, Total	377.		mg/l	0.100	0.0293	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
Zinc, Total	0.00560	J	mg/l	0.01000	0.00341	1	01/16/19 12:03	01/17/19 13:16	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/17/19 13:16	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-01
 Client ID: RMW03_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 15:30
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00443	J	mg/l	0.0100	0.00327	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00179	J	mg/l	0.00400	0.00042	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00091		mg/l	0.00050	0.00016	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.4057		mg/l	0.00050	0.00017	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Calcium, Dissolved	423.		mg/l	0.100	0.0394	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00069	J	mg/l	0.00100	0.00017	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00018	J	mg/l	0.00050	0.00016	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.439		mg/l	0.0500	0.0191	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	57.6		mg/l	0.0700	0.0242	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.9551		mg/l	0.00100	0.00044	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Mercury, Dissolved	0.00006	J	mg/l	0.00020	0.00006	1	01/17/19 14:26	01/21/19 17:52	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00183	J	mg/l	0.00200	0.00055	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Potassium, Dissolved	25.3		mg/l	0.100	0.0309	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Sodium, Dissolved	370.		mg/l	0.100	0.0293	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Thallium, Dissolved	0.00025	J	mg/l	0.00050	0.00014	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/16/19 16:10	01/17/19 11:49	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-02
 Client ID: RMW04_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 13:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	1.14		mg/l	0.0100	0.00327	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Antimony, Total	0.00364	J	mg/l	0.00400	0.00042	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00221		mg/l	0.00050	0.00016	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Barium, Total	0.4032		mg/l	0.00050	0.00017	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Calcium, Total	354.		mg/l	0.100	0.0394	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Chromium, Total	0.00644		mg/l	0.00100	0.00017	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00178		mg/l	0.00050	0.00016	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Copper, Total	0.00712		mg/l	0.00100	0.00038	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Iron, Total	8.99		mg/l	0.0500	0.0191	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Lead, Total	0.03752		mg/l	0.00100	0.00034	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Magnesium, Total	52.7		mg/l	0.0700	0.0242	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Manganese, Total	1.036		mg/l	0.00100	0.00044	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Mercury, Total	0.00009	J	mg/l	0.00020	0.00006	1	01/16/19 12:45	01/16/19 21:52	EPA 7470A	1,7470A	MG
Nickel, Total	0.00566		mg/l	0.00200	0.00055	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Potassium, Total	23.1		mg/l	0.100	0.0309	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Sodium, Total	189.		mg/l	0.100	0.0293	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Thallium, Total	0.00024	J	mg/l	0.00050	0.00014	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Vanadium, Total	0.00416	J	mg/l	0.00500	0.00157	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
Zinc, Total	0.01978		mg/l	0.01000	0.00341	1	01/16/19 12:03	01/17/19 12:35	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/17/19 12:35	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-02
 Client ID: RMW04_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 13:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00522	J	mg/l	0.0100	0.00327	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00208	J	mg/l	0.00400	0.00042	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00149		mg/l	0.00050	0.00016	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.3518		mg/l	0.00050	0.00017	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Calcium, Dissolved	327.		mg/l	0.100	0.0394	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00033	J	mg/l	0.00100	0.00017	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00059		mg/l	0.00050	0.00016	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Iron, Dissolved	5.87		mg/l	0.0500	0.0191	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	49.6		mg/l	0.0700	0.0242	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.9776		mg/l	0.00100	0.00044	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/17/19 14:26	01/21/19 17:41	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00233		mg/l	0.00200	0.00055	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Potassium, Dissolved	21.5		mg/l	0.100	0.0309	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Sodium, Dissolved	181.		mg/l	0.100	0.0293	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Thallium, Dissolved	0.00020	J	mg/l	0.00050	0.00014	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/16/19 16:10	01/17/19 11:30	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-03
 Client ID: RMW05_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 11:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	1.58		mg/l	0.0100	0.00327	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Antimony, Total	0.00131	J	mg/l	0.00400	0.00042	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00144		mg/l	0.00050	0.00016	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Barium, Total	0.2146		mg/l	0.00050	0.00017	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Beryllium, Total	0.00010	J	mg/l	0.00050	0.00010	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00007	J	mg/l	0.00020	0.00005	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Calcium, Total	151.		mg/l	0.100	0.0394	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Chromium, Total	0.01169		mg/l	0.00100	0.00017	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00176		mg/l	0.00050	0.00016	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Copper, Total	0.01153		mg/l	0.00100	0.00038	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Iron, Total	3.20		mg/l	0.0500	0.0191	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Lead, Total	0.05522		mg/l	0.00100	0.00034	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Magnesium, Total	80.6		mg/l	0.0700	0.0242	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Manganese, Total	0.3425		mg/l	0.00100	0.00044	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Mercury, Total	0.00020		mg/l	0.00020	0.00006	1	01/16/19 12:45	01/16/19 22:04	EPA 7470A	1,7470A	MG
Nickel, Total	0.00759		mg/l	0.00200	0.00055	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Potassium, Total	29.6		mg/l	0.100	0.0309	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Sodium, Total	43.8		mg/l	0.100	0.0293	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Vanadium, Total	0.00515		mg/l	0.00500	0.00157	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
Zinc, Total	0.03200		mg/l	0.01000	0.00341	1	01/16/19 12:03	01/17/19 12:39	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	0.011		mg/l	0.010	0.010	1		01/17/19 12:39	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19**SAMPLE RESULTS**

Lab ID: L1901865-03
 Client ID: RMW05_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 11:00
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00551	J	mg/l	0.0100	0.00327	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00072	J	mg/l	0.00400	0.00042	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00036	J	mg/l	0.00050	0.00016	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.1601		mg/l	0.00050	0.00017	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Calcium, Dissolved	147.		mg/l	0.100	0.0394	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00115		mg/l	0.00100	0.00017	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00020	J	mg/l	0.00050	0.00016	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.313		mg/l	0.0500	0.0191	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	80.8		mg/l	0.0700	0.0242	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.2947		mg/l	0.00100	0.00044	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/17/19 14:26	01/21/19 17:53	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00059	J	mg/l	0.00200	0.00055	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Potassium, Dissolved	29.2		mg/l	0.100	0.0309	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Sodium, Dissolved	44.1		mg/l	0.100	0.0293	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/16/19 16:10	01/17/19 11:53	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

SAMPLE RESULTS

Lab ID: L1901865-04

Date Collected: 01/15/19 00:00

Client ID: GWDUP01_011519

Date Received: 01/15/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.221		mg/l	0.0100	0.00327	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00143		mg/l	0.00050	0.00016	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Barium, Total	0.4095		mg/l	0.00050	0.00017	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Calcium, Total	417.		mg/l	0.100	0.0394	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Chromium, Total	0.00284		mg/l	0.00100	0.00017	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00041	J	mg/l	0.00050	0.00016	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Copper, Total	0.00247		mg/l	0.00100	0.00038	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Iron, Total	0.919		mg/l	0.0500	0.0191	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Lead, Total	0.00767		mg/l	0.00100	0.00034	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Magnesium, Total	57.1		mg/l	0.0700	0.0242	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Manganese, Total	0.9354		mg/l	0.00100	0.00044	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/16/19 12:45	01/16/19 22:06	EPA 7470A	1,7470A	MG
Nickel, Total	0.00365		mg/l	0.00200	0.00055	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Potassium, Total	24.8		mg/l	0.100	0.0309	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Sodium, Total	369.		mg/l	0.100	0.0293	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
Zinc, Total	0.00549	J	mg/l	0.01000	0.00341	1	01/16/19 12:03	01/17/19 12:02	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/17/19 12:02	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19**SAMPLE RESULTS**

Lab ID: L1901865-04

Date Collected: 01/15/19 00:00

Client ID: GWDUP01_011519

Date Received: 01/15/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00543	J	mg/l	0.0100	0.00327	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00048	J	mg/l	0.00400	0.00042	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00064		mg/l	0.00050	0.00016	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.4194		mg/l	0.00050	0.00017	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Calcium, Dissolved	421.		mg/l	0.100	0.0394	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00066	J	mg/l	0.00100	0.00017	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00017	J	mg/l	0.00050	0.00016	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.418		mg/l	0.0500	0.0191	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	58.0		mg/l	0.0700	0.0242	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.9654		mg/l	0.00100	0.00044	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/17/19 14:26	01/21/19 17:55	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00148	J	mg/l	0.00200	0.00055	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Potassium, Dissolved	25.4		mg/l	0.100	0.0309	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Sodium, Dissolved	371.		mg/l	0.100	0.0293	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/16/19 16:10	01/17/19 11:58	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG1198177-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Antimony, Total	0.00045	J	mg/l	0.00400	0.00042	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Barium, Total	ND		mg/l	0.00050	0.00017	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Calcium, Total	0.0394	J	mg/l	0.100	0.0394	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Copper, Total	ND		mg/l	0.00100	0.00038	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Iron, Total	ND		mg/l	0.0500	0.0191	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Nickel, Total	ND		mg/l	0.00200	0.00055	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Sodium, Total	0.0432	J	mg/l	0.100	0.0293	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	01/16/19 12:03	01/17/19 12:21	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG1198197-1										
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/16/19 12:45	01/16/19 21:49	1,7470A	MG



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-04 Batch: WG1198261-1										
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Antimony, Dissolved	ND		mg/l	0.00400	0.00042	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Barium, Dissolved	ND		mg/l	0.00050	0.00017	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Calcium, Dissolved	ND		mg/l	0.100	0.0394	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Chromium, Dissolved	0.00022	J	mg/l	0.00100	0.00017	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Iron, Dissolved	0.0328	J	mg/l	0.0500	0.0191	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Magnesium, Dissolved	ND		mg/l	0.0700	0.0242	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Potassium, Dissolved	ND		mg/l	0.100	0.0309	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Sodium, Dissolved	0.0384	J	mg/l	0.100	0.0293	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/16/19 16:10	01/17/19 10:34	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-04 Batch: WG1198576-1									
Mercury, Dissolved	ND	mg/l	0.00020	0.00006	1	01/17/19 14:26	01/21/19 17:38	1,7470A	MG

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1198177-2								
Aluminum, Total	102		-		80-120	-		
Antimony, Total	96		-		80-120	-		
Arsenic, Total	104		-		80-120	-		
Barium, Total	104		-		80-120	-		
Beryllium, Total	104		-		80-120	-		
Cadmium, Total	110		-		80-120	-		
Calcium, Total	100		-		80-120	-		
Chromium, Total	100		-		80-120	-		
Cobalt, Total	101		-		80-120	-		
Copper, Total	96		-		80-120	-		
Iron, Total	111		-		80-120	-		
Lead, Total	107		-		80-120	-		
Magnesium, Total	105		-		80-120	-		
Manganese, Total	99		-		80-120	-		
Nickel, Total	100		-		80-120	-		
Potassium, Total	102		-		80-120	-		
Selenium, Total	106		-		80-120	-		
Silver, Total	102		-		80-120	-		
Sodium, Total	100		-		80-120	-		
Thallium, Total	105		-		80-120	-		
Vanadium, Total	102		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1198177-2					
Zinc, Total	108	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1198197-2					
Mercury, Total	112	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1198261-2					
Aluminum, Dissolved	102	-	80-120	-	
Antimony, Dissolved	91	-	80-120	-	
Arsenic, Dissolved	109	-	80-120	-	
Barium, Dissolved	104	-	80-120	-	
Beryllium, Dissolved	109	-	80-120	-	
Cadmium, Dissolved	113	-	80-120	-	
Calcium, Dissolved	106	-	80-120	-	
Chromium, Dissolved	105	-	80-120	-	
Cobalt, Dissolved	106	-	80-120	-	
Copper, Dissolved	103	-	80-120	-	
Iron, Dissolved	108	-	80-120	-	
Lead, Dissolved	110	-	80-120	-	
Magnesium, Dissolved	107	-	80-120	-	
Manganese, Dissolved	104	-	80-120	-	
Nickel, Dissolved	105	-	80-120	-	
Potassium, Dissolved	104	-	80-120	-	
Selenium, Dissolved	112	-	80-120	-	
Silver, Dissolved	105	-	80-120	-	
Sodium, Dissolved	102	-	80-120	-	
Thallium, Dissolved	108	-	80-120	-	
Vanadium, Dissolved	106	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1198261-2					
Zinc, Dissolved	112	-	80-120	-	
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1198576-2					
Mercury, Dissolved	109	-	80-120	-	

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MS Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1198177-3 WG1198177-4 QC Sample: L1901865-02 Client ID: RMW04_011519												
Aluminum, Total	1.14	2	3.53	120		3.54	120		75-125	0		20
Antimony, Total	0.00364J	0.5	0.5288	106		0.5460	109		75-125	3		20
Arsenic, Total	0.00221	0.12	0.1276	104		0.1333	109		75-125	4		20
Barium, Total	0.4032	2	2.448	102		2.496	105		75-125	2		20
Beryllium, Total	ND	0.05	0.05233	105		0.05326	106		75-125	2		20
Cadmium, Total	ND	0.051	0.05462	107		0.05683	111		75-125	4		20
Calcium, Total	354.	10	379	250	Q	385	310	Q	75-125	2		20
Chromium, Total	0.00644	0.2	0.2042	99		0.2102	102		75-125	3		20
Cobalt, Total	0.00178	0.5	0.4913	98		0.5074	101		75-125	3		20
Copper, Total	0.00712	0.25	0.2391	93		0.2505	97		75-125	5		20
Iron, Total	8.99	1	10.5	151	Q	10.6	161	Q	75-125	1		20
Lead, Total	0.03752	0.51	0.5925	109		0.6042	111		75-125	2		20
Magnesium, Total	52.7	10	67.9	152	Q	69.5	168	Q	75-125	2		20
Manganese, Total	1.036	0.5	1.590	111		1.592	111		75-125	0		20
Nickel, Total	0.00566	0.5	0.4833	96		0.5004	99		75-125	3		20
Potassium, Total	23.1	10	35.0	119		34.8	117		75-125	1		20
Selenium, Total	ND	0.12	0.128	107		0.126	105		75-125	105		20
Silver, Total	ND	0.05	0.04963	99		0.05158	103		75-125	4		20
Sodium, Total	189.	10	218	290	Q	220	310	Q	75-125	1		20
Thallium, Total	0.00024J	0.12	0.1270	106		0.1294	108		75-125	2		20
Vanadium, Total	0.00416J	0.5	0.5211	104		0.5211	104		75-125	0		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 RMW04_011519 QC Batch ID: WG1198177-3 WG1198177-4 QC Sample: L1901865-02 Client ID:									
Zinc, Total	0.01978	0.5	0.6257	121	0.5534	107	75-125	12	20
Total Metals - Mansfield Lab Associated sample(s): 01-04 RMW04_011519 QC Batch ID: WG1198197-3 WG1198197-4 QC Sample: L1901865-02 Client ID:									
Mercury, Total	0.00009J	0.005	0.00464	93	0.00474	95	75-125	2	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1198261-3 WG1198261-4 QC Sample: L1901865-02 Client ID: RMW04_011519									
Aluminum, Dissolved	0.00522J	2	2.05	102	2.12	106	75-125	3	20
Antimony, Dissolved	0.00208J	0.5	0.5082	102	0.5344	107	75-125	5	20
Arsenic, Dissolved	0.00149	0.12	0.1281	106	0.1349	111	75-125	5	20
Barium, Dissolved	0.3518	2	2.418	103	2.537	109	75-125	5	20
Beryllium, Dissolved	ND	0.05	0.05236	105	0.05331	107	75-125	2	20
Cadmium, Dissolved	ND	0.051	0.05600	110	0.05904	116	75-125	5	20
Calcium, Dissolved	327.	10	359	320	Q 378	510	Q 75-125	5	20
Chromium, Dissolved	0.00033J	0.2	0.2014	101	0.2090	104	75-125	4	20
Cobalt, Dissolved	0.00059	0.5	0.5014	100	0.5223	104	75-125	4	20
Copper, Dissolved	ND	0.25	0.2378	95	0.2546	102	75-125	7	20
Iron, Dissolved	5.87	1	7.28	141	Q 7.72	185	Q 75-125	6	20
Lead, Dissolved	ND	0.51	0.5540	109	0.5861	115	75-125	6	20
Magnesium, Dissolved	49.6	10	65.7	161	Q 67.8	182	Q 75-125	3	20
Manganese, Dissolved	0.9776	0.5	1.503	105	1.569	118	75-125	4	20
Nickel, Dissolved	0.00233	0.5	0.5027	100	0.5298	105	75-125	5	20
Potassium, Dissolved	21.5	10	33.5	120	35.2	137	Q 75-125	5	20
Selenium, Dissolved	ND	0.12	0.128	107	0.138	115	75-125	8	20
Silver, Dissolved	ND	0.05	0.05164	103	0.05378	108	75-125	4	20
Sodium, Dissolved	181.	10	212	310	Q 218	370	Q 75-125	3	20
Thallium, Dissolved	0.00020J	0.12	0.1280	107	0.1358	113	75-125	6	20
Vanadium, Dissolved	ND	0.5	0.5124	102	0.5361	107	75-125	5	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1198261-3 WG1198261-4 QC Sample: L1901865-02 Client ID: RMW04_011519									
Zinc, Dissolved	ND	0.5	0.5276	106	0.5495	110	75-125	4	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1198576-3 WG1198576-4 QC Sample: L1901865-02 Client ID: RMW04_011519									
Mercury, Dissolved	ND	0.005	0.00416	83	0.00279	56	Q 75-125	39	Q 20

INORGANICS & MISCELLANEOUS

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19**SAMPLE RESULTS**

Lab ID: L1901865-01
 Client ID: RMW03_011519
 Sample Location: BRONX, NY

Date Collected: 01/15/19 15:30
 Date Received: 01/15/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.023		mg/l	0.005	0.001	1	01/17/19 16:50	01/18/19 12:49	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/16/19 06:00	01/16/19 06:28	1,7196A	JT



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19**SAMPLE RESULTS**

Lab ID: L1901865-02

Date Collected: 01/15/19 13:00

Client ID: RMW04_011519

Date Received: 01/15/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.037		mg/l	0.005	0.001	1	01/17/19 16:50	01/18/19 12:50	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/16/19 06:00	01/16/19 06:28	1,7196A	JT



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19**SAMPLE RESULTS**

Lab ID: L1901865-03

Date Collected: 01/15/19 11:00

Client ID: RMW05_011519

Date Received: 01/15/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.007		mg/l	0.005	0.001	1	01/17/19 16:50	01/18/19 12:54	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/16/19 06:00	01/16/19 06:29	1,7196A	JT



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19**SAMPLE RESULTS**

Lab ID: L1901865-04

Date Collected: 01/15/19 00:00

Client ID: GWDUP01_011519

Date Received: 01/15/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.016		mg/l	0.005	0.001	1	01/17/19 16:50	01/18/19 12:55	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/16/19 06:00	01/16/19 06:29	1,7196A	JT



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1901865

Project Number: 170487001

Report Date: 01/22/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG1198028-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/16/19 06:00	01/16/19 06:27	1,7196A	JT
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG1198578-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	01/17/19 16:50	01/18/19 12:29	1,9010C/9012B	LH

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG1198028-2								
Chromium, Hexavalent	96		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG1198578-2 WG1198578-3								
Cyanide, Total	91		98		85-115	7		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1198028-3 WG1198028-4 QC Sample: L1901865-02 Client ID: RMW04_011519												
Chromium, Hexavalent	ND	0.1	0.097	97		0.095	95		85-115	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1198578-4 WG1198578-5 QC Sample: L1901865-02 Client ID: RMW04_011519												
Cyanide, Total	0.037	0.2	0.225	94		0.227	95		80-120	1		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1901865

Report Date: 01/22/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1198028-5 QC Sample: L1901865-02 Client ID: RMW04_011519						
Chromium, Hexavalent	ND	ND	mg/l	NC		20

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Serial_No:01221919:18
Lab Number: L1901865
Report Date: 01/22/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1901865-01A	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-01B	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-01C	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-01D	Plastic 250ml HNO3 preserved	B	<2	<2	3.6	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1901865-01E	Plastic 250ml HNO3 preserved	B	<2	<2	3.6	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1901865-01F	Plastic 500ml unpreserved	B	7	7	3.6	Y	Absent		HEXCR-7196(1)
L1901865-01G	Plastic 250ml NaOH preserved	B	>12	>12	3.6	Y	Absent		TCN-9010(14)
L1901865-01H	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8082-LVI(7)
L1901865-01I	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8082-LVI(7)
L1901865-01J	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8081(7)
L1901865-01K	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8081(7)
L1901865-01L	Amber 250ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901865-01M	Amber 250ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1901865**Project Number:** 170487001**Report Date:** 01/22/19**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1901865-01N	Amber 1000ml unpreserved	B	7	7	3.6	Y	Absent		HERB-APA(7)
L1901865-01O	Amber 1000ml unpreserved	B	7	7	3.6	Y	Absent		HERB-APA(7)
L1901865-02A	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-02A1	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-02A2	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-02B	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-02B1	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-02B2	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-02C	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-02C1	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-02C2	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-02D	Plastic 250ml HNO3 preserved	A	<2	<2	2.7	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1901865-02D1	Plastic 250ml HNO3 preserved	C	<2	<2	3.4	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1901865-02D2	Plastic 250ml HNO3 preserved	C	<2	<2	3.4	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1901865-02E	Plastic 250ml HNO3 preserved	A	<2	<2	2.7	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1901865-02E1	Plastic 250ml HNO3 preserved	C	<2	<2	3.4	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1901865-02E2	Plastic 250ml HNO3 preserved	C	<2	<2	3.4	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1901865-02F	Plastic 500ml unpreserved	A	7	7	2.7	Y	Absent		HEXCR-7196(1)
L1901865-02F1	Plastic 500ml unpreserved	C	7	7	3.4	Y	Absent		HEXCR-7196(1)
L1901865-02F2	Plastic 500ml unpreserved	C	7	7	3.4	Y	Absent		HEXCR-7196(1)
L1901865-02G	Plastic 250ml NaOH preserved	A	>12	>12	2.7	Y	Absent		TCN-9010(14)
L1901865-02G1	Plastic 250ml NaOH preserved	C	>12	>12	3.4	Y	Absent		TCN-9010(14)
L1901865-02G2	Plastic 250ml NaOH preserved	C	>12	>12	3.4	Y	Absent		TCN-9010(14)
L1901865-02H	Amber 120ml unpreserved	A	7	7	2.7	Y	Absent		NYTCL-8082-LVI(7)
L1901865-02H1	Amber 120ml unpreserved	C	7	7	3.4	Y	Absent		NYTCL-8082-LVI(7)
L1901865-02H2	Amber 120ml unpreserved	C	7	7	3.4	Y	Absent		NYTCL-8082-LVI(7)
L1901865-02I	Amber 120ml unpreserved	A	7	7	2.7	Y	Absent		NYTCL-8082-LVI(7)
L1901865-02I1	Amber 120ml unpreserved	C	7	7	3.4	Y	Absent		NYTCL-8082-LVI(7)
L1901865-02I2	Amber 120ml unpreserved	C	7	7	3.4	Y	Absent		NYTCL-8082-LVI(7)
L1901865-02J	Amber 120ml unpreserved	A	7	7	2.7	Y	Absent		NYTCL-8081(7)

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Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1901865-02J1	Amber 120ml unpreserved	C	7	7	3.4	Y	Absent		NYTCL-8081(7)
L1901865-02J2	Amber 120ml unpreserved	C	7	7	3.4	Y	Absent		NYTCL-8081(7)
L1901865-02K	Amber 120ml unpreserved	A	7	7	2.7	Y	Absent		NYTCL-8081(7)
L1901865-02K1	Amber 120ml unpreserved	C	7	7	3.4	Y	Absent		NYTCL-8081(7)
L1901865-02K2	Amber 120ml unpreserved	C	7	7	3.4	Y	Absent		NYTCL-8081(7)
L1901865-02L	Amber 250ml unpreserved	A	7	7	2.7	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901865-02L1	Amber 250ml unpreserved	C	7	7	3.4	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901865-02L2	Amber 250ml unpreserved	C	7	7	3.4	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901865-02M	Amber 250ml unpreserved	A	7	7	2.7	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901865-02M1	Amber 250ml unpreserved	C	7	7	3.4	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901865-02M2	Amber 250ml unpreserved	C	7	7	3.4	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901865-02N	Amber 1000ml unpreserved	A	7	7	2.7	Y	Absent		HERB-APA(7)
L1901865-02N1	Amber 1000ml unpreserved	C	7	7	3.4	Y	Absent		HERB-APA(7)
L1901865-02N2	Amber 1000ml unpreserved	C	7	7	3.4	Y	Absent		HERB-APA(7)
L1901865-02O	Amber 1000ml unpreserved	A	7	7	2.7	Y	Absent		HERB-APA(7)
L1901865-02O1	Amber 1000ml unpreserved	C	7	7	3.4	Y	Absent		HERB-APA(7)
L1901865-02O2	Amber 1000ml unpreserved	C	7	7	3.4	Y	Absent		HERB-APA(7)
L1901865-03A	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-03B	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-03C	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-03D	Plastic 250ml HNO3 preserved	A	<2	<2	2.7	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)

Project Name: GERARD AVE. + E. 146TH ST.
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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1901865-03E	Plastic 250ml HNO3 preserved	A	<2	<2	2.7	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1901865-03F	Plastic 500ml unpreserved	A	7	7	2.7	Y	Absent		HEXCR-7196(1)
L1901865-03G	Plastic 250ml NaOH preserved	A	>12	>12	2.7	Y	Absent		TCN-9010(14)
L1901865-03H	Amber 120ml unpreserved	A	7	7	2.7	Y	Absent		NYTCL-8082-LVI(7)
L1901865-03I	Amber 120ml unpreserved	A	7	7	2.7	Y	Absent		NYTCL-8082-LVI(7)
L1901865-03J	Amber 120ml unpreserved	A	7	7	2.7	Y	Absent		NYTCL-8081(7)
L1901865-03K	Amber 120ml unpreserved	A	7	7	2.7	Y	Absent		NYTCL-8081(7)
L1901865-03L	Amber 250ml unpreserved	A	7	7	2.7	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901865-03M	Amber 250ml unpreserved	A	7	7	2.7	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901865-03N	Amber 1000ml unpreserved	A	7	7	2.7	Y	Absent		HERB-APA(7)
L1901865-03O	Amber 1000ml unpreserved	A	7	7	2.7	Y	Absent		HERB-APA(7)
L1901865-04A	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-04B	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-04C	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-04D	Plastic 250ml HNO3 preserved	B	<2	<2	3.6	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1901865-04E	Plastic 250ml HNO3 preserved	B	<2	<2	3.6	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1901865-04F	Plastic 500ml unpreserved	B	7	7	3.6	Y	Absent		HEXCR-7196(1)
L1901865-04G	Plastic 250ml NaOH preserved	B	>12	>12	3.6	Y	Absent		TCN-9010(14)
L1901865-04H	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8082-LVI(7)
L1901865-04I	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8082-LVI(7)
L1901865-04J	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8081(7)
L1901865-04K	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8081(7)
L1901865-04L	Amber 250ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901865-04M	Amber 250ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1901865-04N	Amber 1000ml unpreserved	B	7	7	3.6	Y	Absent		HERB-APA(7)
L1901865-04O	Amber 1000ml unpreserved	B	7	7	3.6	Y	Absent		HERB-APA(7)
L1901865-05A	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1901865-05B	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)

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GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE. + E. 146TH ST.
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Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1901865
Report Date: 01/22/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	NEW YORK CHAIN OF CUSTODY Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 1	Date Rec'd in Lab <i>1/15/19</i>	ALPHA Job # <i>L1901865</i>																																																																																																	
		Project Information Project Name: Gerard Ave. + E. 146th St. Project Location: Bronx NY Project # 170487001 (Use Project name as Project #) <input checked="" type="checkbox"/>		Deliverables <input checked="" type="checkbox"/> ASP-A <i>1-15-19</i> <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQulS (1 File) <input checked="" type="checkbox"/> EQulS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #																																																																																																
Client Information Client: Langan Engineering Address: 21 Penn Plaza, 360 W. 31st St 8th Fl., NY, NY 10001-2727 Phone: (212) 479-5400 Fax: (212) 479-5444 Email: jleung@langan.com		Project Manager: Julia Leung ALPHAQuote #: <i>7013</i> Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:																																																																																																
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: Please also cc: datamanagement@langan.com and vzuluaga@langan.com Please specify Metals or TAL.			ANALYSIS			Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)																																																																																																
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ANALYTICAL REPORT

Lab Number:	L1902070
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	GERARD AVE. + E. 146TH ST.
Project Number:	170487003
Report Date:	01/25/19

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1902070-01	RMW01_011619	WATER	BRONX, NY	01/16/19 10:00	01/16/19
L1902070-02	RMW07_011619	WATER	BRONX, NY	01/16/19 12:00	01/16/19
L1902070-03	RMW09_011619	WATER	BRONX, NY	01/16/19 15:00	01/16/19
L1902070-04	GWFB02_011619	WATER	BRONX, NY	01/16/19 12:45	01/16/19
L1902070-05	GWTB03_011619	WATER	BRONX, NY	01/16/19 00:00	01/16/19

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Case Narrative (continued)

Report Submission

January 25, 2019: This final report includes the results of all requested analyses.

January 25, 2019: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L1902070-03: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

Semivolatile Organics by SIM

L1902070-04: Naphthalene was identified in the Field Blank. The sample vial was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

Perfluorinated Alkyl Acids by Isotope Dilution

L1902070-03 and WG1198461-2/-3: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

L1902070-04: The Field Blank has a concentration above the reporting limit for 1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS). The result was confirmed.

WG1198573-11: The continuing calibration standard, associated with L1902070 and QC, had the response for the extracted internal standard (Perfluoro[1,2-¹³C₂]Tetradecanoic Acid (M2PFTEDA) (158.7%) outside the acceptance criteria for the method. The associated target analytes were within acceptance criteria, therefore no further action was taken.

Total Metals

L1902070-04: The Field Blank has results for barium and manganese present above the reporting limits. The

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Case Narrative (continued)

sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

Dissolved Metals

L1902070-04: The Field Blank has a result for barium present above the reporting limit. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

The WG1198536-3 MS recoveries for calcium (240%), magnesium (134%), and sodium (270%), performed on L1902070-01, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1198536-3 MS recovery, performed on L1902070-01, is outside the acceptance criteria for selenium (35%). A post digestion spike was performed and was within acceptance criteria.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 01/25/19

ORGANICS

VOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-01
 Client ID: RMW01_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 10:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/18/19 20:54
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	2.5		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-01
 Client ID: RMW01_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 10:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	0.97	J	ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	0.97	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	2.1	J	ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	4.3		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-01
 Client ID: RMW01_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 10:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	1.3	J	ug/l	2.0	0.70	1
p-Ethyltoluene	5.4		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	10		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	90		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-02
 Client ID: RMW07_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/18/19 21:30
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-02
 Client ID: RMW07_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-02
Client ID: RMW07_011619
Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
Date Received: 01/16/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	91		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-03 D
 Client ID: RMW09_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 15:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/21/19 13:22
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	ND		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	ND		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	ND		ug/l	10	2.6	20
1,1,1-Trichloroethane	ND		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
1,3-Dichloropropene, Total	ND		ug/l	10	2.9	20
1,1-Dichloropropene	ND		ug/l	50	14.	20
Bromoform	ND		ug/l	40	13.	20
1,1,2,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	840		ug/l	10	3.2	20
Toluene	48	J	ug/l	50	14.	20
Ethylbenzene	130		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	ND		ug/l	20	1.4	20
Chloroethane	ND		ug/l	50	14.	20
1,1-Dichloroethene	ND		ug/l	10	3.4	20
trans-1,2-Dichloroethene	ND		ug/l	50	14.	20

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-03 D

Date Collected: 01/16/19 15:00

Client ID: RMW09_011619

Date Received: 01/16/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	28	J	ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
Xylenes, Total	28	J	ug/l	50	14.	20
cis-1,2-Dichloroethene	ND		ug/l	50	14.	20
1,2-Dichloroethene, Total	ND		ug/l	50	14.	20
Dibromomethane	ND		ug/l	100	20.	20
1,2,3-Trichloropropane	ND		ug/l	50	14.	20
Acrylonitrile	ND		ug/l	100	30.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	ND		ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	ND		ug/l	100	39.	20
Vinyl acetate	ND		ug/l	100	20.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
2,2-Dichloropropane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,3-Dichloropropane	ND		ug/l	50	14.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	50	14.	20
Bromobenzene	ND		ug/l	50	14.	20
n-Butylbenzene	ND		ug/l	50	14.	20
sec-Butylbenzene	ND		ug/l	50	14.	20
tert-Butylbenzene	ND		ug/l	50	14.	20
o-Chlorotoluene	ND		ug/l	50	14.	20
p-Chlorotoluene	ND		ug/l	50	14.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Hexachlorobutadiene	ND		ug/l	50	14.	20
Isopropylbenzene	130		ug/l	50	14.	20
p-Isopropyltoluene	ND		ug/l	50	14.	20
Naphthalene	370		ug/l	50	14.	20

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-03 D
 Client ID: RMW09_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 15:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	220		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
1,3,5-Trimethylbenzene	ND		ug/l	50	14.	20
1,2,4-Trimethylbenzene	ND		ug/l	50	14.	20
1,4-Dioxane	ND		ug/l	5000	1200	20
p-Diethylbenzene	ND		ug/l	40	14.	20
p-Ethyltoluene	24	J	ug/l	40	14.	20
1,2,4,5-Tetramethylbenzene	66		ug/l	40	11.	20
Ethyl ether	ND		ug/l	50	14.	20
trans-1,4-Dichloro-2-butene	ND		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	95		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-04
 Client ID: GWFB02_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/17/19 13:52
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-04
 Client ID: GWFB02_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-04
Client ID: GWFB02_011619
Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
Date Received: 01/16/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	103		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-05
 Client ID: GWTB03_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 00:00
 Date Received: 01/16/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/17/19 14:20
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-05
 Client ID: GWTB03_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 00:00
 Date Received: 01/16/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-05
Client ID: GWTB03_011619
Sample Location: BRONX, NY

Date Collected: 01/16/19 00:00
Date Received: 01/16/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	100		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/17/19 09:13
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04-05 Batch: WG1198696-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/17/19 09:13
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04-05 Batch: WG1198696-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/17/19 09:13
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 04-05 Batch: WG1198696-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	97		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/18/19 12:25
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1198987-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/18/19 12:25
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1198987-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8260C
 Analytical Date: 01/18/19 12:25
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1198987-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	92		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/21/19 09:40
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1199885-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/21/19 09:40
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1199885-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/21/19 09:40
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1199885-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04-05 Batch: WG1198696-3 WG1198696-4								
Methylene chloride	92		91		70-130	1		20
1,1-Dichloroethane	96		98		70-130	2		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	90		93		63-132	3		20
1,2-Dichloropropane	96		100		70-130	4		20
Dibromochloromethane	99		100		63-130	1		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	95		98		70-130	3		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	72		75		62-150	4		20
1,2-Dichloroethane	95		100		70-130	5		20
1,1,1-Trichloroethane	94		95		67-130	1		20
Bromodichloromethane	96		98		67-130	2		20
trans-1,3-Dichloropropene	99		100		70-130	1		20
cis-1,3-Dichloropropene	93		97		70-130	4		20
1,1-Dichloropropene	89		92		70-130	3		20
Bromoform	99		100		54-136	1		20
1,1,2,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	91		94		70-130	3		20
Toluene	100		100		70-130	0		20
Ethylbenzene	99		100		70-130	1		20
Chloromethane	54	Q	55	Q	64-130	2		20
Bromomethane	43		29	Q	39-139	39	Q	20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04-05 Batch: WG1198696-3 WG1198696-4								
Vinyl chloride	75		75		55-140	0		20
Chloroethane	100		100		55-138	0		20
1,1-Dichloroethene	78		80		61-145	3		20
trans-1,2-Dichloroethene	90		94		70-130	4		20
Trichloroethene	93		96		70-130	3		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	93		100		63-130	7		20
p/m-Xylene	100		105		70-130	5		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	95		97		70-130	2		20
Dibromomethane	94		98		70-130	4		20
1,2,3-Trichloropropane	100		110		64-130	10		20
Acrylonitrile	92		100		70-130	8		20
Styrene	90		95		70-130	5		20
Dichlorodifluoromethane	56		57		36-147	2		20
Acetone	83		75		58-148	10		20
Carbon disulfide	81		82		51-130	1		20
2-Butanone	93		98		63-138	5		20
Vinyl acetate	110		110		70-130	0		20
4-Methyl-2-pentanone	88		110		59-130	22	Q	20
2-Hexanone	80		96		57-130	18		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04-05 Batch: WG1198696-3 WG1198696-4								
Bromochloromethane	99		100		70-130	1		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	96		100		70-130	4		20
1,3-Dichloropropane	100		110		70-130	10		20
1,1,1,2-Tetrachloroethane	100		110		64-130	10		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	98		100		53-136	2		20
sec-Butylbenzene	99		100		70-130	1		20
tert-Butylbenzene	97		98		70-130	1		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	88		100		41-144	13		20
Hexachlorobutadiene	80		80		63-130	0		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	96		97		70-130	1		20
Naphthalene	84		93		70-130	10		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	86		91		70-130	6		20
1,2,4-Trichlorobenzene	88		89		70-130	1		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	100		100		56-162	0		20
p-Diethylbenzene	93		95		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487003

Lab Number: L1902070

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 04-05 Batch: WG1198696-3 WG1198696-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	88		89		70-130	1		20
Ethyl ether	86		91		59-134	6		20
trans-1,4-Dichloro-2-butene	96		100		70-130	4		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	97		99		70-130
Toluene-d8	101		102		70-130
4-Bromofluorobenzene	96		93		70-130
Dibromofluoromethane	99		97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1198987-3 WG1198987-4								
Methylene chloride	96		91		70-130	5		20
1,1-Dichloroethane	100		96		70-130	4		20
Chloroform	96		92		70-130	4		20
Carbon tetrachloride	81		78		63-132	4		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	96		95		63-130	1		20
1,1,2-Trichloroethane	110		110		70-130	0		20
Tetrachloroethene	86		85		70-130	1		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	81		78		62-150	4		20
1,2-Dichloroethane	97		96		70-130	1		20
1,1,1-Trichloroethane	86		84		67-130	2		20
Bromodichloromethane	97		93		67-130	4		20
trans-1,3-Dichloropropene	91		89		70-130	2		20
cis-1,3-Dichloropropene	88		86		70-130	2		20
1,1-Dichloropropene	93		92		70-130	1		20
Bromoform	100		100		54-136	0		20
1,1,2,2-Tetrachloroethane	120		120		67-130	0		20
Benzene	97		94		70-130	3		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		110		70-130	10		20
Chloromethane	75		72		64-130	4		20
Bromomethane	51		45		39-139	13		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1198987-3 WG1198987-4								
Vinyl chloride	87		83		55-140	5		20
Chloroethane	98		94		55-138	4		20
1,1-Dichloroethene	87		84		61-145	4		20
trans-1,2-Dichloroethene	92		91		70-130	1		20
Trichloroethene	91		90		70-130	1		20
1,2-Dichlorobenzene	100		110		70-130	10		20
1,3-Dichlorobenzene	110		110		70-130	0		20
1,4-Dichlorobenzene	110		110		70-130	0		20
Methyl tert butyl ether	81		81		63-130	0		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	94		92		70-130	2		20
Dibromomethane	91		91		70-130	0		20
1,2,3-Trichloropropane	120		120		64-130	0		20
Acrylonitrile	100		100		70-130	0		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	74		70		36-147	6		20
Acetone	110		110		58-148	0		20
Carbon disulfide	84		80		51-130	5		20
2-Butanone	120		120		63-138	0		20
Vinyl acetate	120		120		70-130	0		20
4-Methyl-2-pentanone	110		110		59-130	0		20
2-Hexanone	120		120		57-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1198987-3 WG1198987-4								
Bromochloromethane	92		91		70-130	1		20
2,2-Dichloropropane	66		62	Q	63-133	6		20
1,2-Dibromoethane	100		100		70-130	0		20
1,3-Dichloropropane	110		110		70-130	0		20
1,1,1,2-Tetrachloroethane	99		97		64-130	2		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	110		120		53-136	9		20
sec-Butylbenzene	110		110		70-130	0		20
tert-Butylbenzene	110		110		70-130	0		20
o-Chlorotoluene	120		120		70-130	0		20
p-Chlorotoluene	120		120		70-130	0		20
1,2-Dibromo-3-chloropropane	93		99		41-144	6		20
Hexachlorobutadiene	94		92		63-130	2		20
Isopropylbenzene	110		120		70-130	9		20
p-Isopropyltoluene	110		110		70-130	0		20
Naphthalene	110		120		70-130	9		20
n-Propylbenzene	120		120		69-130	0		20
1,2,3-Trichlorobenzene	100		110		70-130	10		20
1,2,4-Trichlorobenzene	100		110		70-130	10		20
1,3,5-Trimethylbenzene	110		120		64-130	9		20
1,2,4-Trimethylbenzene	110		120		70-130	9		20
1,4-Dioxane	112		116		56-162	4		20
p-Diethylbenzene	110		110		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487003

Lab Number: L1902070

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1198987-3 WG1198987-4								
p-Ethyltoluene	110		120		70-130	9		20
1,2,4,5-Tetramethylbenzene	110		120		70-130	9		20
Ethyl ether	96		97		59-134	1		20
trans-1,4-Dichloro-2-butene	100		100		70-130	0		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	98		98		70-130
Toluene-d8	108		108		70-130
4-Bromofluorobenzene	111		110		70-130
Dibromofluoromethane	92		91		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1199885-3 WG1199885-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	91		91		63-132	0		20
1,2-Dichloropropane	98		100		70-130	2		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	94		95		70-130	1		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	85		87		62-150	2		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	95		97		67-130	2		20
Bromodichloromethane	99		98		67-130	1		20
trans-1,3-Dichloropropene	100		99		70-130	1		20
cis-1,3-Dichloropropene	98		96		70-130	2		20
1,1-Dichloropropene	92		93		70-130	1		20
Bromoform	100		98		54-136	2		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	97		99		70-130	2		20
Toluene	100		110		70-130	10		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	76		77		64-130	1		20
Bromomethane	32	Q	36	Q	39-139	12		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1199885-3 WG1199885-4								
Vinyl chloride	100		100		55-140	0		20
Chloroethane	120		130		55-138	8		20
1,1-Dichloroethene	93		93		61-145	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	96		100		70-130	4		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	98		98		63-130	0		20
p/m-Xylene	100		105		70-130	5		20
o-Xylene	100		105		70-130	5		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	97		96		70-130	1		20
1,2,3-Trichloropropane	100		100		64-130	0		20
Acrylonitrile	100		95		70-130	5		20
Styrene	95		95		70-130	0		20
Dichlorodifluoromethane	85		85		36-147	0		20
Acetone	62		65		58-148	5		20
Carbon disulfide	120		120		51-130	0		20
2-Butanone	84		82		63-138	2		20
Vinyl acetate	110		110		70-130	0		20
4-Methyl-2-pentanone	88		86		59-130	2		20
2-Hexanone	80		81		57-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1199885-3 WG1199885-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	100		100		63-133	0		20
1,2-Dibromoethane	97		96		70-130	1		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	93		94		53-136	1		20
sec-Butylbenzene	95		95		70-130	0		20
tert-Butylbenzene	94		95		70-130	1		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	86		90		41-144	5		20
Hexachlorobutadiene	71		74		63-130	4		20
Isopropylbenzene	98		99		70-130	1		20
p-Isopropyltoluene	93		95		70-130	2		20
Naphthalene	84		83		70-130	1		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	88		86		70-130	2		20
1,2,4-Trichlorobenzene	88		88		70-130	0		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	64		92		56-162	36	Q	20
p-Diethylbenzene	90		91		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487003

Lab Number: L1902070

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1199885-3 WG1199885-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	90		89		70-130	1		20
Ethyl ether	98		100		59-134	2		20
trans-1,4-Dichloro-2-butene	100		97		70-130	3		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	95		95		70-130
Toluene-d8	100		102		70-130
4-Bromofluorobenzene	95		94		70-130
Dibromofluoromethane	97		97		70-130

SEMIVOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-01
 Client ID: RMW01_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 10:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/19/19 09:05
 Analyst: ALS

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 19:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-01
 Client ID: RMW01_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 10:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		21-120
Phenol-d6	54		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	91		10-120
4-Terphenyl-d14	77		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-01
 Client ID: RMW01_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 10:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/20/19 21:21
 Analyst: CB

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 19:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	32		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	2.6		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.52		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.30		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.14		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.14		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.06	J	ug/l	0.10	0.01	1
Chrysene	0.31		ug/l	0.10	0.01	1
Acenaphthylene	3.3		ug/l	0.10	0.01	1
Anthracene	0.85		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.10		ug/l	0.10	0.01	1
Fluorene	1.3		ug/l	0.10	0.01	1
Phenanthrene	0.52		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.03	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.08	J	ug/l	0.10	0.01	1
Pyrene	3.6		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-01

Date Collected: 01/16/19 10:00

Client ID: RMW01_011619

Date Received: 01/16/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	47		21-120
Phenol-d6	43		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	83		15-120
2,4,6-Tribromophenol	83		10-120
4-Terphenyl-d14	84		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-02
 Client ID: RMW07_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/19/19 09:32
 Analyst: ALS

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 19:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-02
Client ID: RMW07_011619
Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
Date Received: 01/16/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		21-120
Phenol-d6	52		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	80		10-120
4-Terphenyl-d14	76		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-02
 Client ID: RMW07_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/18/19 13:05
 Analyst: MA

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 14:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.144	0.0326	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	23		15-110

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-02
 Client ID: RMW07_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/20/19 21:48
 Analyst: CB

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 19:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.03	J	ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.11		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.06	J	ug/l	0.10	0.05	1
Benzo(a)anthracene	0.04	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	0.04	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.06	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.03	J	ug/l	0.10	0.01	1
Chrysene	0.05	J	ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.01	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.04	J	ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	0.06	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.04	J	ug/l	0.10	0.01	1
Pyrene	0.11		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-02

Date Collected: 01/16/19 12:00

Client ID: RMW07_011619

Date Received: 01/16/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		21-120
Phenol-d6	40		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	67		10-120
4-Terphenyl-d14	85		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-02
Client ID: RMW07_011619
Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
Date Received: 01/16/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 01/20/19 03:00
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 01/17/19 09:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	4.73		ng/l	1.82	0.339	1
Perfluoropentanoic Acid (PFPeA)	1.73	J	ng/l	1.82	0.422	1
Perfluorobutanesulfonic Acid (PFBS)	3.49		ng/l	1.82	0.345	1
Perfluorohexanoic Acid (PFHxA)	1.66	J	ng/l	1.82	0.447	1
Perfluoroheptanoic Acid (PFHpA)	1.42	J	ng/l	1.82	0.338	1
Perfluorohexanesulfonic Acid (PFHxS)	0.782	J	ng/l	1.82	0.396	1
Perfluorooctanoic Acid (PFOA)	10.8		ng/l	1.82	0.418	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.79	J	ng/l	1.82	0.176	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.82	0.473	1
Perfluorononanoic Acid (PFNA)	0.600	J	ng/l	1.82	0.396	1
Perfluorooctanesulfonic Acid (PFOS)	7.55		ng/l	1.82	0.509	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.82	0.564	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.82	0.264	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.82	0.228	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.82	0.385	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.82	0.351	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.82	0.505	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.82	0.339	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.82	0.538	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.82	0.285	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.82	0.898	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-02
 Client ID: RMW07_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	93		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	101		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	92		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	74		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	88		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	97		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	98		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	129		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	98		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	98		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	91		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	78		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	98		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	100		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	7		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	89		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	83		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	121		33-143

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-03
 Client ID: RMW09_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 15:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/19/19 09:59
 Analyst: ALS

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 19:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-03
 Client ID: RMW09_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 15:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	9.5		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	1.5	J	ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	89		21-120
Phenol-d6	70		10-120
Nitrobenzene-d5	113		23-120
2-Fluorobiphenyl	94		15-120
2,4,6-Tribromophenol	132	Q	10-120
4-Terphenyl-d14	87		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-03
 Client ID: RMW09_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 15:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/18/19 13:56
 Analyst: MA

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 14:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.139	0.0314	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	20		15-110

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-03
 Client ID: RMW09_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 15:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/20/19 22:14
 Analyst: CB

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 19:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.28		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.48		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	130	E	ug/l	0.10	0.05	1
Benzo(a)anthracene	0.10	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	0.06	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.10		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.04	J	ug/l	0.10	0.01	1
Chrysene	0.10		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.32		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.05	J	ug/l	0.10	0.01	1
Fluorene	0.19		ug/l	0.10	0.01	1
Phenanthrene	1.3		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.01	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.04	J	ug/l	0.10	0.01	1
Pyrene	0.40		ug/l	0.10	0.02	1
2-Methylnaphthalene	64		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-03

Date Collected: 01/16/19 15:00

Client ID: RMW09_011619

Date Received: 01/16/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	48		10-120
Nitrobenzene-d5	91		23-120
2-Fluorobiphenyl	87		15-120
2,4,6-Tribromophenol	33		10-120
4-Terphenyl-d14	89		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-03
Client ID: RMW09_011619
Sample Location: BRONX, NY

Date Collected: 01/16/19 15:00
Date Received: 01/16/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 01/20/19 03:17
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 01/17/19 09:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	7.08		ng/l	2.07	0.387	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.07	0.481	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.07	0.394	1
Perfluorohexanoic Acid (PFHxA)	2.16		ng/l	2.07	0.510	1
Perfluoroheptanoic Acid (PFHpA)	1.76	J	ng/l	2.07	0.386	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.07	0.452	1
Perfluorooctanoic Acid (PFOA)	17.6		ng/l	2.07	0.477	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.57	J	ng/l	2.07	0.201	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.07	0.539	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.07	0.452	1
Perfluorooctanesulfonic Acid (PFOS)	4.19		ng/l	2.07	0.581	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.07	0.643	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.07	0.302	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.07	0.260	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.07	0.440	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.07	0.400	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.07	0.577	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	1.71	J	ng/l	2.07	0.387	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.07	0.614	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.07	0.326	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.07	1.02	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-03
 Client ID: RMW09_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 15:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	98		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	85		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	83		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	68		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	74		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	91		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	96		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	220		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	113		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	100		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	85		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	191	Q	7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	120		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	90		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	46		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	115		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	75		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	107		33-143

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-03 D

Date Collected: 01/16/19 15:00

Client ID: RMW09_011619

Date Received: 01/16/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Extraction Method: EPA 3510C

Analytical Method: 1,8270D-SIM

Extraction Date: 01/17/19 19:06

Analytical Date: 01/23/19 12:55

Analyst: CB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	290		ug/l	1.0	0.49	10

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-04
 Client ID: GWFB02_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/19/19 10:26
 Analyst: ALS

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 19:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-04
 Client ID: GWFB02_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		21-120
Phenol-d6	51		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	71		15-120
2,4,6-Tribromophenol	67		10-120
4-Terphenyl-d14	74		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-04
 Client ID: GWFB02_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/18/19 14:22
 Analyst: MA

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 14:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ug/l	0.144	0.0326	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	23		15-110

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-04
 Client ID: GWFB02_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/20/19 22:41
 Analyst: CB

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 19:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.10		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-04

Date Collected: 01/16/19 12:45

Client ID: GWFB02_011619

Date Received: 01/16/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	43		21-120
Phenol-d6	43		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	84		15-120
2,4,6-Tribromophenol	60		10-120
4-Terphenyl-d14	94		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-04
Client ID: GWFB02_011619
Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
Date Received: 01/16/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 01/20/19 00:15
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 01/17/19 09:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.94	0.363	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.94	0.451	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.94	0.370	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.94	0.478	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.94	0.362	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.94	0.424	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.94	0.447	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	2.08		ng/l	1.94	0.189	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.94	0.506	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.94	0.424	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.94	0.545	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.94	0.603	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.94	0.283	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	0.428	J	ng/l	1.94	0.244	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.94	0.412	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.94	0.375	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.94	0.541	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	0.650	J	ng/l	1.94	0.363	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.94	0.576	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.94	0.305	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.94	0.961	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-04
 Client ID: GWFB02_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	100		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	116		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	95		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	87		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	95		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	104		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	99		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	74		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	107		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	105		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	96		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	72		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	102		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	109		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	22		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	94		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	98		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	112		33-143

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 01/18/19 09:39
Analyst: MA

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 14:00

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 02-04 Batch: WG1198434-1					
1,4-Dioxane	ND		ug/l	0.150	0.0339

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	33		15-110

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 01/19/19 20:56
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 01/17/19 09:20

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 02-04 Batch: WG1198461-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.373
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.464
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.380
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.492
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.372
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.436
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.460
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	1.28	J	ng/l	2.00	0.194
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.520
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.436
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.560
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.620
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	0.291
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.250
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.424
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.386
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.556
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.373
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.592
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.314
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.988

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 122,537(M)
Analytical Date: 01/19/19 20:56
Analyst: AJ

Extraction Method: EPA 537
Extraction Date: 01/17/19 09:20

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 02-04 Batch: WG1198461-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	115		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	123		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	124		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	100		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	110		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	119		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	111		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	96		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	117		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	108		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	99		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	95		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	113		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	136		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	42		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	118		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	112		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	134		33-143

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/21/19 13:27
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 19:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1198691-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/21/19 13:27
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 19:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1198691-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 01/21/19 13:27
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 19:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-04 Batch: WG1198691-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	53		10-120
4-Terphenyl-d14	69		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 01/20/19 17:23
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 19:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-04 Batch: WG1198692-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 01/20/19 17:23
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 19:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-04 Batch: WG1198692-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	45		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	86		15-120
2,4,6-Tribromophenol	75		10-120
4-Terphenyl-d14	85		41-149

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 02-04 Batch: WG1198434-2 WG1198434-3								
1,4-Dioxane	110		115		40-140	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	27		23		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 02-04 Batch: WG1198461-2 WG1198461-3								
Perfluorobutanoic Acid (PFBA)	84		93		67-148	10		30
Perfluoropentanoic Acid (PFPeA)	88		96		63-161	9		30
Perfluorobutanesulfonic Acid (PFBS)	82		90		65-157	9		30
Perfluorohexanoic Acid (PFHxA)	90		98		69-168	9		30
Perfluoroheptanoic Acid (PFHpA)	78		84		58-159	7		30
Perfluorohexanesulfonic Acid (PFHxS)	84		92		69-177	9		30
Perfluorooctanoic Acid (PFOA)	82		88		63-159	7		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	102		101		49-187	1		30
Perfluoroheptanesulfonic Acid (PFHpS)	77		95		61-179	21		30
Perfluorononanoic Acid (PFNA)	84		90		68-171	7		30
Perfluorooctanesulfonic Acid (PFOS)	68		76		52-151	11		30
Perfluorodecanoic Acid (PFDA)	86		96		63-171	11		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	90		100		56-173	11		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	78		82		60-166	5		30
Perfluoroundecanoic Acid (PFUnA)	76		82		60-153	8		30
Perfluorodecanesulfonic Acid (PFDS)	88		89		38-156	1		30
Perfluorooctanesulfonamide (FOSA)	79		90		46-170	13		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	80		84		45-170	5		30
Perfluorododecanoic Acid (PFDoA)	78		86		67-153	10		30
Perfluorotridecanoic Acid (PFTrDA)	95		115		48-158	19		30
Perfluorotetradecanoic Acid (PFTA)	94		98		59-182	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits			Qual	Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 02-04 Batch: WG1198461-2 WG1198461-3									

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Perfluoro[13C4]Butanoic Acid (MPFBA)	107		108		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	116		114		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	107		110		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	92		90		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	101		97		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	105		111		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	108		103		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	96		112		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	123		114		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	107		101		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	106		96		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	97		96		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	95		78		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	124		111		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	36		44		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	93		80		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	106		88		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	153	Q	154	Q	33-143

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1198691-2 WG1198691-3								
Acenaphthene	76		87		37-111	13		30
1,2,4-Trichlorobenzene	76		85		39-98	11		30
Hexachlorobenzene	82		94		40-140	14		30
Bis(2-chloroethyl)ether	73		86		40-140	16		30
2-Chloronaphthalene	87		99		40-140	13		30
1,2-Dichlorobenzene	73		85		40-140	15		30
1,3-Dichlorobenzene	71		80		40-140	12		30
1,4-Dichlorobenzene	69		83		36-97	18		30
3,3'-Dichlorobenzidine	44		59		40-140	29		30
2,4-Dinitrotoluene	82		90		48-143	9		30
2,6-Dinitrotoluene	92		101		40-140	9		30
Fluoranthene	78		87		40-140	11		30
4-Chlorophenyl phenyl ether	81		90		40-140	11		30
4-Bromophenyl phenyl ether	85		94		40-140	10		30
Bis(2-chloroisopropyl)ether	73		82		40-140	12		30
Bis(2-chloroethoxy)methane	77		88		40-140	13		30
Hexachlorobutadiene	81		95		40-140	16		30
Hexachlorocyclopentadiene	76		90		40-140	17		30
Hexachloroethane	73		84		40-140	14		30
Isophorone	86		98		40-140	13		30
Naphthalene	78		90		40-140	14		30
Nitrobenzene	82		93		40-140	13		30
NDPA/DPA	74		88		40-140	17		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1198691-2 WG1198691-3								
n-Nitrosodi-n-propylamine	89		100		29-132	12		30
Bis(2-ethylhexyl)phthalate	88		94		40-140	7		30
Butyl benzyl phthalate	93		104		40-140	11		30
Di-n-butylphthalate	82		90		40-140	9		30
Di-n-octylphthalate	91		98		40-140	7		30
Diethyl phthalate	90		98		40-140	9		30
Dimethyl phthalate	94		104		40-140	10		30
Benzo(a)anthracene	84		93		40-140	10		30
Benzo(a)pyrene	80		91		40-140	13		30
Benzo(b)fluoranthene	85		96		40-140	12		30
Benzo(k)fluoranthene	81		92		40-140	13		30
Chrysene	79		84		40-140	6		30
Acenaphthylene	86		96		45-123	11		30
Anthracene	80		88		40-140	10		30
Benzo(ghi)perylene	85		90		40-140	6		30
Fluorene	80		92		40-140	14		30
Phenanthrene	79		85		40-140	7		30
Dibenzo(a,h)anthracene	84		92		40-140	9		30
Indeno(1,2,3-cd)pyrene	78		83		40-140	6		30
Pyrene	74		83		26-127	11		30
Biphenyl	81		92		40-140	13		30
4-Chloroaniline	45		66		40-140	38	Q	30
2-Nitroaniline	96		102		52-143	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1198691-2 WG1198691-3								
3-Nitroaniline	62		78		25-145	23		30
4-Nitroaniline	72		83		51-143	14		30
Dibenzofuran	77		87		40-140	12		30
2-Methylnaphthalene	81		94		40-140	15		30
1,2,4,5-Tetrachlorobenzene	81		93		2-134	14		30
Acetophenone	84		94		39-129	11		30
2,4,6-Trichlorophenol	89		103		30-130	15		30
p-Chloro-m-cresol	90		105	Q	23-97	15		30
2-Chlorophenol	79		95		27-123	18		30
2,4-Dichlorophenol	87		97		30-130	11		30
2,4-Dimethylphenol	10	Q	29	Q	30-130	97	Q	30
2-Nitrophenol	90		104		30-130	14		30
4-Nitrophenol	87	Q	101	Q	10-80	15		30
2,4-Dinitrophenol	90		78		20-130	14		30
4,6-Dinitro-o-cresol	88		92		20-164	4		30
Pentachlorophenol	83		75		9-103	10		30
Phenol	64		74		12-110	14		30
2-Methylphenol	61		78		30-130	24		30
3-Methylphenol/4-Methylphenol	76		93		30-130	20		30
2,4,5-Trichlorophenol	93		106		30-130	13		30
Benzoic Acid	80		63		10-164	24		30
Benzyl Alcohol	90		100		26-116	11		30
Carbazole	82		90		55-144	9		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-04 Batch: WG1198691-2 WG1198691-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	72		86		21-120
Phenol-d6	63		75		10-120
Nitrobenzene-d5	83		94		23-120
2-Fluorobiphenyl	87		96		15-120
2,4,6-Tribromophenol	87		101		10-120
4-Terphenyl-d14	71		80		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 Batch: WG1198692-2 WG1198692-3								
Acenaphthene	68		80		40-140	16		40
2-Chloronaphthalene	81		96		40-140	17		40
Fluoranthene	77		95		40-140	21		40
Hexachlorobutadiene	75		86		40-140	14		40
Naphthalene	74		85		40-140	14		40
Benzo(a)anthracene	72		90		40-140	22		40
Benzo(a)pyrene	74		92		40-140	22		40
Benzo(b)fluoranthene	63		78		40-140	21		40
Benzo(k)fluoranthene	69		85		40-140	21		40
Chrysene	71		87		40-140	20		40
Acenaphthylene	83		100		40-140	19		40
Anthracene	73		90		40-140	21		40
Benzo(ghi)perylene	67		85		40-140	24		40
Fluorene	71		86		40-140	19		40
Phenanthrene	72		88		40-140	20		40
Dibenzo(a,h)anthracene	67		85		40-140	24		40
Indeno(1,2,3-cd)pyrene	80		100		40-140	22		40
Pyrene	78		96		40-140	21		40
2-Methylnaphthalene	80		93		40-140	15		40
Pentachlorophenol	58		71		40-140	20		40
Hexachlorobenzene	73		89		40-140	20		40
Hexachloroethane	62		71		40-140	14		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-04 Batch: WG1198692-2 WG1198692-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	58		67		21-120
Phenol-d6	46		55		10-120
Nitrobenzene-d5	78		91		23-120
2-Fluorobiphenyl	84		98		15-120
2,4,6-Tribromophenol	75		93		10-120
4-Terphenyl-d14	81		98		41-149

PCBS

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-01
 Client ID: RMW01_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 10:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8082A
 Analytical Date: 01/21/19 16:25
 Analyst: HT

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 10:26
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/17/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/18/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	79		30-150	A
2,4,5,6-Tetrachloro-m-xylene	88		30-150	B
Decachlorobiphenyl	105		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-02
Client ID: RMW07_011619
Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
Date Received: 01/16/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 01/21/19 16:39
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 10:26
Cleanup Method: EPA 3665A
Cleanup Date: 01/17/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/18/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	80		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	90		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-03
Client ID: RMW09_011619
Sample Location: BRONX, NY

Date Collected: 01/16/19 15:00
Date Received: 01/16/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 01/21/19 16:52
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 10:26
Cleanup Method: EPA 3665A
Cleanup Date: 01/17/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/18/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	96		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-04
 Client ID: GWFB02_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8082A
 Analytical Date: 01/21/19 17:06
 Analyst: HT

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 10:26
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/17/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/18/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	85		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8082A
Analytical Date: 01/21/19 00:41
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 01/17/19 04:01
Cleanup Method: EPA 3665A
Cleanup Date: 01/17/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/18/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-04 Batch: WG1198386-1						
Aroclor 1016	ND		ug/l	0.082	0.034	A
Aroclor 1221	ND		ug/l	0.082	0.066	A
Aroclor 1232	ND		ug/l	0.082	0.045	A
Aroclor 1242	ND		ug/l	0.082	0.038	A
Aroclor 1248	ND		ug/l	0.082	0.048	A
Aroclor 1254	ND		ug/l	0.082	0.039	A
Aroclor 1260	ND		ug/l	0.082	0.032	A
Aroclor 1262	ND		ug/l	0.082	0.034	A
Aroclor 1268	ND		ug/l	0.082	0.033	A
PCBs, Total	ND		ug/l	0.082	0.032	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	70		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	82		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487003

Lab Number: L1902070

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-04 Batch: WG1198386-2 WG1198386-3									
Aroclor 1016	75		66		40-140	13		50	A
Aroclor 1260	79		71		40-140	11		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		76		30-150	A
Decachlorobiphenyl	100		83		30-150	A
2,4,5,6-Tetrachloro-m-xylene	88		80		30-150	B
Decachlorobiphenyl	99		90		30-150	B

PESTICIDES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-01
 Client ID: RMW01_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 10:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/19/19 13:38
 Analyst: KEG

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 10:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-01

Date Collected: 01/16/19 10:00

Client ID: RMW01_011619

Date Received: 01/16/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	42		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	77		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-01
 Client ID: RMW01_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 10:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/19/19 22:20
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/18/19 17:21

Methylation Date: 01/19/19 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	73		30-150	A
DCAA	65		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-02
 Client ID: RMW07_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/19/19 13:51
 Analyst: KEG

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 10:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-02
 Client ID: RMW07_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	53		30-150	A
Decachlorobiphenyl	53		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	57		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-02
 Client ID: RMW07_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/19/19 22:39
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/18/19 17:21

Methylation Date: 01/19/19 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	101		30-150	A
DCAA	80		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-03
 Client ID: RMW09_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 15:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/19/19 14:03
 Analyst: KEG

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 10:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-03

Date Collected: 01/16/19 15:00

Client ID: RMW09_011619

Date Received: 01/16/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	46		30-150	B
Decachlorobiphenyl	50		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-03
 Client ID: RMW09_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 15:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/19/19 22:58
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/18/19 17:21

Methylation Date: 01/19/19 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	93		30-150	A
DCAA	88		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-04
 Client ID: GWFB02_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/19/19 14:16
 Analyst: KEG

Extraction Method: EPA 3510C
 Extraction Date: 01/17/19 10:35

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-04

Date Collected: 01/16/19 12:45

Client ID: GWFB02_011619

Date Received: 01/16/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	55		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	57		30-150	B
Decachlorobiphenyl	63		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-04
 Client ID: GWFB02_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/19/19 23:17
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/18/19 17:21

Methylation Date: 01/19/19 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	108		30-150	A
DCAA	85		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/17/19 12:54
Analyst: SL

Extraction Method: EPA 3510C
Extraction Date: 01/16/19 20:00

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-04 Batch: WG1198332-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	ND		ug/l	0.014	0.002	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Endrin ketone	ND		ug/l	0.029	0.003	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
4,4'-DDT	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
 Analytical Date: 01/17/19 12:54
 Analyst: SL

Extraction Method: EPA 3510C
 Extraction Date: 01/16/19 20:00

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-04 Batch: WG1198332-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	84		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	91		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 01/19/19 21:24
Analyst: DGM

Extraction Method: EPA 8151A
Extraction Date: 01/18/19 17:21

Methylation Date: 01/19/19 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-04 Batch: WG1199049-1						
2,4-D	ND		ug/l	10.0	0.498	A
2,4,5-T	ND		ug/l	2.00	0.531	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	90		30-150	A
DCAA	75		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487003

Lab Number: L1902070

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-04 Batch: WG1198332-2 WG1198332-3									
Delta-BHC	84		82		30-150	3		20	A
Lindane	84		83		30-150	2		20	A
Alpha-BHC	86		86		30-150	0		20	A
Beta-BHC	79		76		30-150	4		20	A
Heptachlor	82		82		30-150	0		20	A
Aldrin	80		80		30-150	0		20	A
Heptachlor epoxide	87		84		30-150	3		20	A
Endrin	88		86		30-150	2		20	A
Endrin aldehyde	71		70		30-150	2		20	A
Endrin ketone	91		90		30-150	1		20	A
Dieldrin	95		94		30-150	1		20	A
4,4'-DDE	87		85		30-150	2		20	A
4,4'-DDD	86		83		30-150	3		20	A
4,4'-DDT	90		87		30-150	3		20	A
Endosulfan I	81		80		30-150	2		20	A
Endosulfan II	82		82		30-150	1		20	A
Endosulfan sulfate	80		78		30-150	2		20	A
Methoxychlor	107		103		30-150	4		20	A
cis-Chlordane	77		76		30-150	2		20	A
trans-Chlordane	82		80		30-150	3		20	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487003

Lab Number: L1902070

Report Date: 01/25/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-04 Batch: WG1198332-2 WG1198332-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	68		68		30-150	A
Decachlorobiphenyl	92		71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		76		30-150	B
Decachlorobiphenyl	95		79		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-04 Batch: WG1199049-2 WG1199049-3									
2,4-D	92		86		30-150	7		25	A
2,4,5-T	95		91		30-150	4		25	A
2,4,5-TP (Silvex)	88		86		30-150	2		25	A

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria	Column
DCAA	94		96		30-150	A
DCAA	95		85		30-150	B



METALS

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-01
 Client ID: RMW01_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 10:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.154		mg/l	0.0100	0.00327	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Antimony, Total	0.00055	J	mg/l	0.00400	0.00042	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00049	J	mg/l	0.00050	0.00016	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Barium, Total	0.3830		mg/l	0.00050	0.00017	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Calcium, Total	481.		mg/l	0.100	0.0394	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Chromium, Total	0.00090	J	mg/l	0.00100	0.00017	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00023	J	mg/l	0.00050	0.00016	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Copper, Total	0.00202		mg/l	0.00100	0.00038	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Iron, Total	1.56		mg/l	0.0500	0.0191	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Lead, Total	0.00396		mg/l	0.00100	0.00034	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Magnesium, Total	62.4		mg/l	0.0700	0.0242	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Manganese, Total	0.5704		mg/l	0.00100	0.00044	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/17/19 12:49	01/21/19 13:26	EPA 7470A	1,7470A	MG
Nickel, Total	0.00216		mg/l	0.00200	0.00055	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Potassium, Total	25.7		mg/l	0.100	0.0309	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Sodium, Total	523.		mg/l	0.100	0.0293	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	01/17/19 14:36	01/18/19 12:24	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/18/19 12:24	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-01
 Client ID: RMW01_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 10:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00439	J	mg/l	0.0100	0.00327	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00100	J	mg/l	0.00400	0.00042	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00035	J	mg/l	0.00050	0.00016	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.3570		mg/l	0.00050	0.00017	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Calcium, Dissolved	457.		mg/l	0.100	0.0394	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00031	J	mg/l	0.00100	0.00017	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Iron, Dissolved	1.04		mg/l	0.0500	0.0191	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	60.4		mg/l	0.0700	0.0242	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.5404		mg/l	0.00100	0.00044	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/17/19 14:26	01/21/19 17:57	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00131	J	mg/l	0.00200	0.00055	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Potassium, Dissolved	24.5		mg/l	0.100	0.0309	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Sodium, Dissolved	517.		mg/l	0.100	0.0293	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/17/19 12:57	01/18/19 09:46	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-02
 Client ID: RMW07_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.294		mg/l	0.0100	0.00327	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Antimony, Total	0.00200	J	mg/l	0.00400	0.00042	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00165		mg/l	0.00050	0.00016	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Barium, Total	0.1446		mg/l	0.00050	0.00017	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00019	J	mg/l	0.00020	0.00005	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Calcium, Total	147.		mg/l	0.100	0.0394	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Chromium, Total	0.00139		mg/l	0.00100	0.00017	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00086		mg/l	0.00050	0.00016	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Copper, Total	0.01151		mg/l	0.00100	0.00038	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Iron, Total	0.656		mg/l	0.0500	0.0191	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Lead, Total	0.03003		mg/l	0.00100	0.00034	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Magnesium, Total	35.8		mg/l	0.0700	0.0242	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Manganese, Total	0.1382		mg/l	0.00100	0.00044	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/17/19 12:49	01/21/19 13:28	EPA 7470A	1,7470A	MG
Nickel, Total	0.00364		mg/l	0.00200	0.00055	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Potassium, Total	13.2		mg/l	0.100	0.0309	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Selenium, Total	0.00888		mg/l	0.00500	0.00173	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Sodium, Total	39.8		mg/l	0.100	0.0293	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Vanadium, Total	0.00316	J	mg/l	0.00500	0.00157	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
Zinc, Total	0.05297		mg/l	0.01000	0.00341	1	01/17/19 14:36	01/18/19 12:28	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/18/19 12:28	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-02
 Client ID: RMW07_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00215	J	mg/l	0.00400	0.00042	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00125		mg/l	0.00050	0.00016	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.1205		mg/l	0.00050	0.00017	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	0.00017	J	mg/l	0.00020	0.00005	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Calcium, Dissolved	141.		mg/l	0.100	0.0394	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00042	J	mg/l	0.00100	0.00017	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00048	J	mg/l	0.00050	0.00016	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.00422		mg/l	0.00100	0.00038	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.0484	J	mg/l	0.0500	0.0191	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.00206		mg/l	0.00100	0.00034	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	34.7		mg/l	0.0700	0.0242	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.1232		mg/l	0.00100	0.00044	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/17/19 14:26	01/21/19 17:59	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00241		mg/l	0.00200	0.00055	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Potassium, Dissolved	12.6		mg/l	0.100	0.0309	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Selenium, Dissolved	0.00808		mg/l	0.00500	0.00173	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Sodium, Dissolved	39.0		mg/l	0.100	0.0293	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	0.00224	J	mg/l	0.00500	0.00157	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM
Zinc, Dissolved	0.03694		mg/l	0.01000	0.00341	1	01/17/19 12:57	01/18/19 09:50	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-03
 Client ID: RMW09_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 15:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.192		mg/l	0.0100	0.00327	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Antimony, Total	0.00071	J	mg/l	0.00400	0.00042	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Arsenic, Total	0.01185		mg/l	0.00050	0.00016	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Barium, Total	0.1033		mg/l	0.00050	0.00017	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Calcium, Total	162.		mg/l	0.100	0.0394	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Chromium, Total	0.00083	J	mg/l	0.00100	0.00017	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00097		mg/l	0.00050	0.00016	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Copper, Total	0.00082	J	mg/l	0.00100	0.00038	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Iron, Total	32.0		mg/l	0.0500	0.0191	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Lead, Total	0.00653		mg/l	0.00100	0.00034	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Magnesium, Total	43.1		mg/l	0.0700	0.0242	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Manganese, Total	2.410		mg/l	0.00100	0.00044	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/17/19 12:49	01/21/19 13:30	EPA 7470A	1,7470A	MG
Nickel, Total	0.00123	J	mg/l	0.00200	0.00055	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Potassium, Total	14.8		mg/l	0.100	0.0309	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Sodium, Total	77.9		mg/l	0.100	0.0293	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	01/17/19 14:36	01/18/19 13:20	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/18/19 13:20	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-03
 Client ID: RMW09_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 15:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00474	J	mg/l	0.0100	0.00327	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00085	J	mg/l	0.00400	0.00042	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.01152		mg/l	0.00050	0.00016	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.1024		mg/l	0.00050	0.00017	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Calcium, Dissolved	161.		mg/l	0.100	0.0394	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00042	J	mg/l	0.00100	0.00017	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00060		mg/l	0.00050	0.00016	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Iron, Dissolved	31.8		mg/l	0.0500	0.0191	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.00266		mg/l	0.00100	0.00034	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	42.8		mg/l	0.0700	0.0242	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Manganese, Dissolved	2.390		mg/l	0.00100	0.00044	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/17/19 14:26	01/21/19 18:00	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00083	J	mg/l	0.00200	0.00055	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Potassium, Dissolved	14.4		mg/l	0.100	0.0309	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Sodium, Dissolved	79.8		mg/l	0.100	0.0293	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/17/19 12:57	01/18/19 09:55	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902070-04
 Client ID: GWFB02_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.00390	J	mg/l	0.0100	0.00327	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Barium, Total	0.00092		mg/l	0.00050	0.00017	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Calcium, Total	0.0405	J	mg/l	0.100	0.0394	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Chromium, Total	0.00068	J	mg/l	0.00100	0.00017	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Copper, Total	ND		mg/l	0.00100	0.00038	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Iron, Total	0.0220	J	mg/l	0.0500	0.0191	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Manganese, Total	0.00185		mg/l	0.00100	0.00044	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/17/19 12:49	01/21/19 13:31	EPA 7470A	1,7470A	MG
Nickel, Total	ND		mg/l	0.00200	0.00055	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Sodium, Total	ND		mg/l	0.100	0.0293	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	01/17/19 14:36	01/18/19 12:59	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/18/19 12:59	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-04
 Client ID: GWFB02_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 12:45
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00047	J	mg/l	0.00400	0.00042	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.00062		mg/l	0.00050	0.00017	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Calcium, Dissolved	0.0811	J	mg/l	0.100	0.0394	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00018	J	mg/l	0.00100	0.00017	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.0315	J	mg/l	0.0500	0.0191	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	ND		mg/l	0.0700	0.0242	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/17/19 14:26	01/21/19 18:02	EPA 7470A	1,7470A	MG
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Potassium, Dissolved	ND		mg/l	0.100	0.0309	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Sodium, Dissolved	ND		mg/l	0.100	0.0293	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/17/19 12:57	01/18/19 09:26	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-04 Batch: WG1198536-1										
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Antimony, Dissolved	0.00054	J	mg/l	0.00400	0.00042	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Barium, Dissolved	ND		mg/l	0.00050	0.00017	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Calcium, Dissolved	ND		mg/l	0.100	0.0394	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Chromium, Dissolved	0.00037	J	mg/l	0.00100	0.00017	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Iron, Dissolved	0.0411	J	mg/l	0.0500	0.0191	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Magnesium, Dissolved	ND		mg/l	0.0700	0.0242	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Potassium, Dissolved	ND		mg/l	0.100	0.0309	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Sodium, Dissolved	0.0323	J	mg/l	0.100	0.0293	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Thallium, Dissolved	0.00015	J	mg/l	0.00050	0.00014	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/17/19 12:57	01/18/19 09:22	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG1198546-1										
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/17/19 12:49	01/21/19 12:56	1,7470A	MG



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-04 Batch: WG1198566-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Antimony, Total	0.00052	J	mg/l	0.00400	0.00042	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Barium, Total	ND		mg/l	0.00050	0.00017	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Calcium, Total	ND		mg/l	0.100	0.0394	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Copper, Total	ND		mg/l	0.00100	0.00038	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Iron, Total	0.0360	J	mg/l	0.0500	0.0191	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Nickel, Total	ND		mg/l	0.00200	0.00055	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Sodium, Total	ND		mg/l	0.100	0.0293	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	01/17/19 14:36	01/18/19 11:59	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-04 Batch: WG1198576-1									
Mercury, Dissolved	ND	mg/l	0.00020	0.00006	1	01/17/19 14:26	01/21/19 17:38	1,7470A	MG

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1198536-2								
Aluminum, Dissolved	100		-		80-120	-		
Antimony, Dissolved	84		-		80-120	-		
Arsenic, Dissolved	102		-		80-120	-		
Barium, Dissolved	97		-		80-120	-		
Beryllium, Dissolved	107		-		80-120	-		
Cadmium, Dissolved	104		-		80-120	-		
Calcium, Dissolved	100		-		80-120	-		
Chromium, Dissolved	94		-		80-120	-		
Cobalt, Dissolved	98		-		80-120	-		
Copper, Dissolved	94		-		80-120	-		
Iron, Dissolved	103		-		80-120	-		
Lead, Dissolved	91		-		80-120	-		
Magnesium, Dissolved	104		-		80-120	-		
Manganese, Dissolved	96		-		80-120	-		
Nickel, Dissolved	95		-		80-120	-		
Potassium, Dissolved	100		-		80-120	-		
Selenium, Dissolved	104		-		80-120	-		
Silver, Dissolved	100		-		80-120	-		
Sodium, Dissolved	102		-		80-120	-		
Thallium, Dissolved	92		-		80-120	-		
Vanadium, Dissolved	99		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487003

Lab Number: L1902070

Report Date: 01/25/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1198536-2					
Zinc, Dissolved	104	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1198546-2					
Mercury, Total	114	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487003

Lab Number: L1902070

Report Date: 01/25/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1198566-2					
Aluminum, Total	100	-	80-120	-	
Antimony, Total	92	-	80-120	-	
Arsenic, Total	104	-	80-120	-	
Barium, Total	102	-	80-120	-	
Beryllium, Total	107	-	80-120	-	
Cadmium, Total	108	-	80-120	-	
Calcium, Total	100	-	80-120	-	
Chromium, Total	100	-	80-120	-	
Cobalt, Total	102	-	80-120	-	
Copper, Total	101	-	80-120	-	
Iron, Total	116	-	80-120	-	
Lead, Total	96	-	80-120	-	
Magnesium, Total	107	-	80-120	-	
Manganese, Total	100	-	80-120	-	
Nickel, Total	99	-	80-120	-	
Potassium, Total	102	-	80-120	-	
Selenium, Total	108	-	80-120	-	
Silver, Total	102	-	80-120	-	
Sodium, Total	104	-	80-120	-	
Thallium, Total	98	-	80-120	-	
Vanadium, Total	101	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487003

Lab Number: L1902070

Report Date: 01/25/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1198566-2					
Zinc, Total	108	-	80-120	-	
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 Batch: WG1198576-2					
Mercury, Dissolved	109	-	80-120	-	

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1198536-3 QC Sample: L1902070-01 Client ID: RMW01_011619												
Aluminum, Dissolved	0.00439J	2	1.99	100		-	-		75-125	-		20
Antimony, Dissolved	0.00100J	0.5	0.5031	101		-	-		75-125	-		20
Arsenic, Dissolved	0.00035J	0.12	0.1238	103		-	-		75-125	-		20
Barium, Dissolved	0.3570	2	2.341	99		-	-		75-125	-		20
Beryllium, Dissolved	ND	0.05	0.05226	104		-	-		75-125	-		20
Cadmium, Dissolved	ND	0.051	0.05075	100		-	-		75-125	-		20
Calcium, Dissolved	457.	10	481	240	Q	-	-		75-125	-		20
Chromium, Dissolved	0.00031J	0.2	0.1932	97		-	-		75-125	-		20
Cobalt, Dissolved	ND	0.5	0.4764	95		-	-		75-125	-		20
Copper, Dissolved	ND	0.25	0.2351	94		-	-		75-125	-		20
Iron, Dissolved	1.04	1	2.10	106		-	-		75-125	-		20
Lead, Dissolved	ND	0.51	0.4975	98		-	-		75-125	-		20
Magnesium, Dissolved	60.4	10	73.8	134	Q	-	-		75-125	-		20
Manganese, Dissolved	0.5404	0.5	1.032	98		-	-		75-125	-		20
Nickel, Dissolved	0.00131J	0.5	0.4744	95		-	-		75-125	-		20
Potassium, Dissolved	24.5	10	35.0	105		-	-		75-125	-		20
Selenium, Dissolved	ND	0.12	0.0421J	35	Q	-	-		75-125	-		20
Silver, Dissolved	ND	0.05	0.04810	96		-	-		75-125	-		20
Sodium, Dissolved	517.	10	544	270	Q	-	-		75-125	-		20
Thallium, Dissolved	ND	0.12	0.1172	98		-	-		75-125	-		20
Vanadium, Dissolved	ND	0.5	0.4981	100		-	-		75-125	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1198536-3 QC Sample: L1902070-01 Client ID: RMW01_011619									
Zinc, Dissolved	ND	0.5	0.4699	94	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1198546-3 WG1198546-4 QC Sample: L1901909-01 Client ID: MS Sample									
Mercury, Total	ND	0.005	0.00455	91	0.00458	92	75-125	1	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1198566-3 QC Sample: L1901815-01 Client ID: MS Sample									
Aluminum, Total	0.027	2	2.08	103	-	-	75-125	-	20
Antimony, Total	0.0008J	0.5	0.5507	110	-	-	75-125	-	20
Arsenic, Total	0.01448	0.12	0.1400	105	-	-	75-125	-	20
Barium, Total	0.8693	2	2.806	97	-	-	75-125	-	20
Beryllium, Total	ND	0.05	0.05195	104	-	-	75-125	-	20
Cadmium, Total	ND	0.051	0.05052	99	-	-	75-125	-	20
Calcium, Total	146	10	154	80	-	-	75-125	-	20
Chromium, Total	0.00181	0.2	0.1996	99	-	-	75-125	-	20
Cobalt, Total	0.0038	0.5	0.4971	99	-	-	75-125	-	20
Copper, Total	0.00097J	0.25	0.2464	98	-	-	75-125	-	20
Iron, Total	13.8	1	15.1	130	Q	-	75-125	-	20
Lead, Total	ND	0.51	0.5057	99	-	-	75-125	-	20
Magnesium, Total	158	10	178	200	Q	-	75-125	-	20
Manganese, Total	1.721	0.5	2.218	99	-	-	75-125	-	20
Nickel, Total	0.00352	0.5	0.4884	97	-	-	75-125	-	20
Potassium, Total	84.5	10	93.1	86	-	-	75-125	-	20
Selenium, Total	ND	0.12	0.124	103	-	-	75-125	-	20
Silver, Total	ND	0.05	0.05051	101	-	-	75-125	-	20
Sodium, Total	163	10	176	130	Q	-	75-125	-	20
Thallium, Total	ND	0.12	0.1210	101	-	-	75-125	-	20
Vanadium, Total	0.0017J	0.5	0.5100	102	-	-	75-125	-	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1198566-3 QC Sample: L1901815-01 Client ID: MS Sample									
Zinc, Total	0.0044J	0.5	0.5042	101	-	-	75-125	-	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1198576-3 WG1198576-4 QC Sample: L1901865-02 Client ID: MS Sample									
Mercury, Dissolved	ND	0.005	0.00416	83	0.00279	56	Q 75-125	39	Q 20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487003

Lab Number: L1902070

Report Date: 01/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1198536-4 QC Sample: L1902070-01 Client ID: RMW01_011619						
Aluminum, Dissolved	0.00439J	0.00497J	mg/l	NC		20
Antimony, Dissolved	0.00100J	0.00265J	mg/l	NC		20
Arsenic, Dissolved	0.00035J	0.00043J	mg/l	NC		20
Barium, Dissolved	0.3570	0.3697	mg/l	3		20
Beryllium, Dissolved	ND	ND	mg/l	NC		20
Cadmium, Dissolved	ND	ND	mg/l	NC		20
Calcium, Dissolved	457.	489	mg/l	7		20
Chromium, Dissolved	0.00031J	0.00032J	mg/l	NC		20
Cobalt, Dissolved	ND	ND	mg/l	NC		20
Copper, Dissolved	ND	ND	mg/l	NC		20
Iron, Dissolved	1.04	1.16	mg/l	11		20
Lead, Dissolved	ND	ND	mg/l	NC		20
Magnesium, Dissolved	60.4	63.6	mg/l	5		20
Manganese, Dissolved	0.5404	0.5704	mg/l	5		20
Nickel, Dissolved	0.00131J	0.00183J	mg/l	NC		20
Potassium, Dissolved	24.5	26.2	mg/l	7		20
Selenium, Dissolved	ND	ND	mg/l	NC		20
Silver, Dissolved	ND	ND	mg/l	NC		20
Sodium, Dissolved	517.	543	mg/l	5		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487003

Lab Number: L1902070

Report Date: 01/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1198536-4 QC Sample: L1902070-01 Client ID: RMW01_011619					
Thallium, Dissolved	ND	0.00018J	mg/l	NC	20
Vanadium, Dissolved	ND	ND	mg/l	NC	20
Zinc, Dissolved	ND	ND	mg/l	NC	20
Total Metals - Mansfield Lab Associated sample(s): 01-04 QC Batch ID: WG1198566-4 QC Sample: L1901815-01 Client ID: DUP Sample					
Arsenic, Total	0.01448	0.01557	mg/l	7	20
Barium, Total	0.8693	0.9003	mg/l	4	20
Beryllium, Total	ND	ND	mg/l	NC	20
Cadmium, Total	ND	ND	mg/l	NC	20
Chromium, Total	0.00181	0.00158	mg/l	14	20
Copper, Total	0.00097J	0.00103	mg/l	NC	20
Lead, Total	ND	ND	mg/l	NC	20
Nickel, Total	0.00352	0.00271	mg/l	26	20 Q
Silver, Total	ND	0.00032J	mg/l	NC	20

INORGANICS & MISCELLANEOUS

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-01
 Client ID: RMW01_011619
 Sample Location: BRONX, NY

Date Collected: 01/16/19 10:00
 Date Received: 01/16/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.016		mg/l	0.005	0.001	1	01/17/19 16:50	01/18/19 12:56	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/17/19 04:15	01/17/19 04:37	1,7196A	GD



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-02

Date Collected: 01/16/19 12:00

Client ID: RMW07_011619

Date Received: 01/16/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.002	J	mg/l	0.005	0.001	1	01/17/19 16:50	01/18/19 12:57	1,9010C/9012B	LH
Chromium, Hexavalent	0.003	J	mg/l	0.010	0.003	1	01/17/19 04:15	01/17/19 04:39	1,7196A	GD



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-03

Date Collected: 01/16/19 15:00

Client ID: RMW09_011619

Date Received: 01/16/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.009		mg/l	0.005	0.001	1	01/17/19 16:50	01/18/19 12:58	1,9010C/9012B	LH
Chromium, Hexavalent	0.003	J	mg/l	0.010	0.003	1	01/17/19 04:15	01/17/19 04:39	1,7196A	GD



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902070-04

Date Collected: 01/16/19 12:45

Client ID: GWFB02_011619

Date Received: 01/16/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	01/17/19 16:50	01/18/19 12:59	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/17/19 04:15	01/17/19 04:40	1,7196A	GD



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902070

Project Number: 170487003

Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG1198387-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/17/19 04:15	01/17/19 04:36	1,7196A	GD
General Chemistry - Westborough Lab for sample(s): 01-04 Batch: WG1198578-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	01/17/19 16:50	01/18/19 12:29	1,9010C/9012B	LH

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487003

Lab Number: L1902070

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG1198387-2								
Chromium, Hexavalent	97		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 Batch: WG1198578-2 WG1198578-3								
Cyanide, Total	91		98		85-115	7		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MS Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1198387-4 QC Sample: L1902070-01 Client ID: RMW01_011619												
Chromium, Hexavalent	ND	0.1	0.100	100		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1198578-4 WG1198578-5 QC Sample: L1901865-02 Client ID: MS Sample												
Cyanide, Total	0.037	0.2	0.225	94		0.227	95		80-120	1		20

Lab Duplicate Analysis*Batch Quality Control***Project Name:** GERARD AVE. + E. 146TH ST.**Lab Number:** L1902070**Project Number:** 170487003**Report Date:** 01/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-04 QC Batch ID: WG1198387-3 QC Sample: L1902070-01 Client ID: RMW01_011619						
Chromium, Hexavalent	ND	ND	mg/l	NC		20

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Serial_No:01251915:23
Lab Number: L1902070
Report Date: 01/25/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1902070-01A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1902070-01B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1902070-01C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1902070-01D	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1902070-01E	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1902070-01F	Plastic 500ml unpreserved	A	7	7	2.6	Y	Absent		HEXCR-7196(1)
L1902070-01G	Plastic 250ml NaOH preserved	A	>12	>12	2.6	Y	Absent		TCN-9010(14)
L1902070-01H	Amber 120ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8082-LVI(7)
L1902070-01I	Amber 120ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8082-LVI(7)
L1902070-01J	Amber 120ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8081(7)
L1902070-01K	Amber 120ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8081(7)
L1902070-01L	Amber 250ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1902070-01M	Amber 250ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Serial_No:01251915:23
Lab Number: L1902070
Report Date: 01/25/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1902070-01N	Amber 1000ml unpreserved	A	7	7	2.6	Y	Absent		HERB-APA(7)
L1902070-01O	Amber 1000ml unpreserved	A	7	7	2.6	Y	Absent		HERB-APA(7)
L1902070-02A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1902070-02B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1902070-02C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1902070-02D	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1902070-02E	Plastic 250ml HNO3 preserved	A	<2	<2	2.6	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1902070-02F	Plastic 500ml unpreserved	A	7	7	2.6	Y	Absent		HEXCR-7196(1)
L1902070-02G	Plastic 250ml NaOH preserved	A	>12	>12	2.6	Y	Absent		TCN-9010(14)
L1902070-02H	Amber 120ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8082-LVI(7)
L1902070-02I	Amber 120ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8082-LVI(7)
L1902070-02J	Amber 120ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8081(7)
L1902070-02K	Amber 120ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8081(7)
L1902070-02L	Amber 250ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1902070-02M	Amber 250ml unpreserved	A	7	7	2.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1902070-02N	Amber 1000ml unpreserved	A	7	7	2.6	Y	Absent		HERB-APA(7)
L1902070-02O	Amber 1000ml unpreserved	A	7	7	2.6	Y	Absent		HERB-APA(7)
L1902070-02P	Plastic 250ml unpreserved	B	NA		4.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L1902070-02Q	Plastic 250ml unpreserved	B	NA		4.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L1902070-02R	Amber 500ml unpreserved	B	B	B	4.7	Y	Absent		A2-14-DIOXANESIM-PPB(7)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Serial_No:01251915:23
Lab Number: L1902070
Report Date: 01/25/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1902070-02S	Amber 500ml unpreserved	B	B	B	4.7	Y	Absent		A2-14-DIOXANESIM-PPB(7)
L1902070-03A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1902070-03B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1902070-03C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1902070-03D	Plastic 250ml HNO3 preserved	C	<2	<2	3.3	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1902070-03E	Plastic 250ml HNO3 preserved	C	<2	<2	3.3	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1902070-03F	Plastic 500ml unpreserved	C	7	7	3.3	Y	Absent		HEXCR-7196(1)
L1902070-03G	Plastic 250ml NaOH preserved	C	>12	>12	3.3	Y	Absent		TCN-9010(14)
L1902070-03H	Amber 120ml unpreserved	C	7	7	3.3	Y	Absent		NYTCL-8082-LVI(7)
L1902070-03I	Amber 120ml unpreserved	C	7	7	3.3	Y	Absent		NYTCL-8082-LVI(7)
L1902070-03J	Amber 120ml unpreserved	C	7	7	3.3	Y	Absent		NYTCL-8081(7)
L1902070-03K	Amber 120ml unpreserved	C	7	7	3.3	Y	Absent		NYTCL-8081(7)
L1902070-03L	Amber 250ml unpreserved	C	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1902070-03M	Amber 250ml unpreserved	C	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1902070-03N	Amber 1000ml unpreserved	C	7	7	3.3	Y	Absent		HERB-APA(7)
L1902070-03O	Amber 1000ml unpreserved	C	7	7	3.3	Y	Absent		HERB-APA(7)
L1902070-03P	Plastic 250ml unpreserved	B	NA		4.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L1902070-03Q	Plastic 250ml unpreserved	B	NA		4.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L1902070-03R	Amber 500ml unpreserved	B	B	B	4.7	Y	Absent		A2-14-DIOXANESIM-PPB(7)
L1902070-03S	Amber 500ml unpreserved	B	B	B	4.7	Y	Absent		A2-14-DIOXANESIM-PPB(7)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Serial_No:01251915:23
Lab Number: L1902070
Report Date: 01/25/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1902070-04A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1902070-04B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1902070-04C	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)
L1902070-04D	Plastic 250ml HNO3 preserved	C	<2	<2	3.3	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1902070-04E	Plastic 250ml HNO3 preserved	C	<2	<2	3.3	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1902070-04F	Plastic 500ml unpreserved	C	7	7	3.3	Y	Absent		HEXCR-7196(1)
L1902070-04G	Plastic 250ml NaOH preserved	C	>12	>12	3.3	Y	Absent		TCN-9010(14)
L1902070-04H	Amber 120ml unpreserved	C	7	7	3.3	Y	Absent		NYTCL-8082-LVI(7)
L1902070-04I	Amber 120ml unpreserved	C	7	7	3.3	Y	Absent		NYTCL-8082-LVI(7)
L1902070-04J	Amber 120ml unpreserved	C	7	7	3.3	Y	Absent		NYTCL-8081(7)
L1902070-04K	Amber 120ml unpreserved	C	7	7	3.3	Y	Absent		NYTCL-8081(7)
L1902070-04L	Amber 250ml unpreserved	C	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1902070-04M	Amber 250ml unpreserved	C	7	7	3.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1902070-04N	Amber 1000ml unpreserved	C	7	7	3.3	Y	Absent		HERB-APA(7)
L1902070-04O	Amber 1000ml unpreserved	C	7	7	3.3	Y	Absent		HERB-APA(7)
L1902070-04P	Plastic 250ml unpreserved	B	NA		4.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L1902070-04Q	Plastic 250ml unpreserved	B	NA		4.7	Y	Absent		A2-NY-537-ISOTOPE(14)
L1902070-04R	Amber 500ml unpreserved	B	B	B	4.7	Y	Absent		A2-14-DIOXANESIM-PPB(7)
L1902070-04S	Amber 500ml unpreserved	B	B	B	4.7	Y	Absent		A2-14-DIOXANESIM-PPB(7)
L1902070-05A	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487003

Serial_No:01251915:23

Lab Number: L1902070

Report Date: 01/25/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1902070-05B	Vial HCl preserved	A	NA		2.6	Y	Absent		NYTCL-8260(14)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487003

Lab Number: L1902070
Report Date: 01/25/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.
- 122 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537, EPA/600/R-08/092. Version 1.1, September 2009.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at its own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 1	Date Rec'd in Lab <u>1/16/19</u>	ALPHA Job # <u>L1902070</u>											
	Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288													
Project Information Project Name: <u>Gerard Ave + E. 146th St</u> Project Location: <u>Bronx NY</u> Project # <u>170487003</u>		Deliverables <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUS (1 File) <input checked="" type="checkbox"/> EQUS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #											
Client Information Client: <u>King Engineering</u> Address: <u>31 Penn Plaza</u> <u>8th Fl, NY NY 10001-2727</u> Phone: <u>212-479-5400</u> Fax: <u>212-479-5444</u> Email: <u>jleung@kingen.com</u>		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:											
Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:															
These samples have been previously analyzed by Alpha <input type="checkbox"/>		ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Lab to do (Please Specify below)											
Other project specific requirements/comments: <u>Please also cc: datamanagement@kingen.com and vzulaga@kingen.com</u>		Please specify Metals or TAL.		Total Bottles											
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Part 375 / TL	Part 375 / TL SVCS	Part 375 / TL PCBs	Pesticides / Herbicides	TAL Metals (total + residual)	Hex Chromium	total cyanide	PFOS + 1,4-Dioxane	Sample Specific Comments	
		Date	Time												
02070-01	RMW01_011619	1/16/19	1000	GW	JL	X	X	X	X	X	X	X	X	dissolved metals	
02	RMW07_011619		1200	↓	JL	X	X	X	X	X	X	X	X	Filtered in	
03	RMW09_011619		1500	↓	JL	X	X	X	X	X	X	X	X	field	
04	GWFB02_011619		1245	AQ	JL	X	X	X	X	X	X	X	X		
05	GWTB03_011619		-	AQ	JL	X									
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type		Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)					
		Relinquished By: <u>JL</u> Date/Time: <u>1/16/19 - 4:20pm</u>		Received By: <u>APL</u> Date/Time: <u>1/16/19 1600</u>											
		Relinquished By: <u>D. Santos APL</u> Date/Time: <u>1/16/19 1841</u>		Received By: <u>D. Santos APL</u> Date/Time: <u>1/16/19 1900</u>											
		Relinquished By: <u>D. Santos APL</u> Date/Time: <u>1/16/19</u>		Received By: <u>D. Santos APL</u> Date/Time: <u>1/16/19 2300</u>											



ANALYTICAL REPORT

Lab Number:	L1902340
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	GERARD AVE. + E. 146TH ST.
Project Number:	170487001
Report Date:	01/25/19

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1902340-01	RMW10_011719	WATER	BRONX, NY	01/17/19 15:35	01/17/19
L1902340-02	RMW11_011719	WATER	BRONX, NY	01/17/19 13:45	01/17/19
L1902340-03	RMW14_011719	WATER	BRONX, NY	01/17/19 12:00	01/17/19
L1902340-04	RMW16_011719	WATER	BRONX, NY	01/17/19 13:15	01/17/19
L1902340-05	RMW17_011719	WATER	BRONX, NY	01/17/19 09:40	01/17/19
L1902340-06	GWTB04_011719	WATER	BRONX, NY	01/17/19 00:00	01/17/19

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The analyses performed were specified by the client.

L1902340-02 and -03: The sample was received above the appropriate pH for the Dissolved Metals analysis.

The laboratory added HNO₃ to a pH <2.

L1902340-04: The collection date and time on the chain of custody was 17-JAN-19 13:15; however, the collection date/time on the container label was 17-JAN-19 13:10. At the client's request, the collection date/time is reported as 17-JAN-19 13:15.

Volatile Organics

L1902340-01, -02 and -03: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 01/25/19

ORGANICS

VOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-01 D
 Client ID: RMW10_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 15:35
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/22/19 17:04
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	1.4	2
1,1-Dichloroethane	ND		ug/l	5.0	1.4	2
Chloroform	ND		ug/l	5.0	1.4	2
Carbon tetrachloride	ND		ug/l	1.0	0.27	2
1,2-Dichloropropane	ND		ug/l	2.0	0.27	2
Dibromochloromethane	ND		ug/l	1.0	0.30	2
1,1,2-Trichloroethane	ND		ug/l	3.0	1.0	2
Tetrachloroethene	ND		ug/l	1.0	0.36	2
Chlorobenzene	ND		ug/l	5.0	1.4	2
Trichlorofluoromethane	ND		ug/l	5.0	1.4	2
1,2-Dichloroethane	ND		ug/l	1.0	0.26	2
1,1,1-Trichloroethane	ND		ug/l	5.0	1.4	2
Bromodichloromethane	ND		ug/l	1.0	0.38	2
trans-1,3-Dichloropropene	ND		ug/l	1.0	0.33	2
cis-1,3-Dichloropropene	ND		ug/l	1.0	0.29	2
1,3-Dichloropropene, Total	ND		ug/l	1.0	0.29	2
1,1-Dichloropropene	ND		ug/l	5.0	1.4	2
Bromoform	ND		ug/l	4.0	1.3	2
1,1,1,2-Tetrachloroethane	ND		ug/l	1.0	0.33	2
Benzene	71		ug/l	1.0	0.32	2
Toluene	2.3	J	ug/l	5.0	1.4	2
Ethylbenzene	2.0	J	ug/l	5.0	1.4	2
Chloromethane	ND		ug/l	5.0	1.4	2
Bromomethane	ND		ug/l	5.0	1.4	2
Vinyl chloride	ND		ug/l	2.0	0.14	2
Chloroethane	ND		ug/l	5.0	1.4	2
1,1-Dichloroethene	ND		ug/l	1.0	0.34	2
trans-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-01 D

Date Collected: 01/17/19 15:35

Client ID: RMW10_011719

Date Received: 01/17/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	1.0	0.35	2
1,2-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,3-Dichlorobenzene	ND		ug/l	5.0	1.4	2
1,4-Dichlorobenzene	ND		ug/l	5.0	1.4	2
Methyl tert butyl ether	ND		ug/l	5.0	1.4	2
p/m-Xylene	4.4	J	ug/l	5.0	1.4	2
o-Xylene	3.0	J	ug/l	5.0	1.4	2
Xylenes, Total	7.4	J	ug/l	5.0	1.4	2
cis-1,2-Dichloroethene	ND		ug/l	5.0	1.4	2
1,2-Dichloroethene, Total	ND		ug/l	5.0	1.4	2
Dibromomethane	ND		ug/l	10	2.0	2
1,2,3-Trichloropropane	ND		ug/l	5.0	1.4	2
Acrylonitrile	ND		ug/l	10	3.0	2
Styrene	ND		ug/l	5.0	1.4	2
Dichlorodifluoromethane	ND		ug/l	10	2.0	2
Acetone	3.5	J	ug/l	10	2.9	2
Carbon disulfide	ND		ug/l	10	2.0	2
2-Butanone	ND		ug/l	10	3.9	2
Vinyl acetate	ND		ug/l	10	2.0	2
4-Methyl-2-pentanone	ND		ug/l	10	2.0	2
2-Hexanone	ND		ug/l	10	2.0	2
Bromochloromethane	ND		ug/l	5.0	1.4	2
2,2-Dichloropropane	ND		ug/l	5.0	1.4	2
1,2-Dibromoethane	ND		ug/l	4.0	1.3	2
1,3-Dichloropropane	ND		ug/l	5.0	1.4	2
1,1,1,2-Tetrachloroethane	ND		ug/l	5.0	1.4	2
Bromobenzene	ND		ug/l	5.0	1.4	2
n-Butylbenzene	9.4		ug/l	5.0	1.4	2
sec-Butylbenzene	13		ug/l	5.0	1.4	2
tert-Butylbenzene	1.6	J	ug/l	5.0	1.4	2
o-Chlorotoluene	ND		ug/l	5.0	1.4	2
p-Chlorotoluene	ND		ug/l	5.0	1.4	2
1,2-Dibromo-3-chloropropane	ND		ug/l	5.0	1.4	2
Hexachlorobutadiene	ND		ug/l	5.0	1.4	2
Isopropylbenzene	72		ug/l	5.0	1.4	2
p-Isopropyltoluene	ND		ug/l	5.0	1.4	2
Naphthalene	ND		ug/l	5.0	1.4	2

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-01 D
 Client ID: RMW10_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 15:35
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	100		ug/l	5.0	1.4	2
1,2,3-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.4	2
1,3,5-Trimethylbenzene	ND		ug/l	5.0	1.4	2
1,2,4-Trimethylbenzene	ND		ug/l	5.0	1.4	2
1,4-Dioxane	ND		ug/l	500	120	2
p-Diethylbenzene	21		ug/l	4.0	1.4	2
p-Ethyltoluene	ND		ug/l	4.0	1.4	2
1,2,4,5-Tetramethylbenzene	110		ug/l	4.0	1.1	2
Ethyl ether	ND		ug/l	5.0	1.4	2
trans-1,4-Dichloro-2-butene	ND		ug/l	5.0	1.4	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	93		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	91		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-02 D
 Client ID: RMW11_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:45
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/22/19 17:25
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	25	7.0	10
1,1-Dichloroethane	ND		ug/l	25	7.0	10
Chloroform	ND		ug/l	25	7.0	10
Carbon tetrachloride	ND		ug/l	5.0	1.3	10
1,2-Dichloropropane	ND		ug/l	10	1.4	10
Dibromochloromethane	ND		ug/l	5.0	1.5	10
1,1,2-Trichloroethane	ND		ug/l	15	5.0	10
Tetrachloroethene	ND		ug/l	5.0	1.8	10
Chlorobenzene	ND		ug/l	25	7.0	10
Trichlorofluoromethane	ND		ug/l	25	7.0	10
1,2-Dichloroethane	ND		ug/l	5.0	1.3	10
1,1,1-Trichloroethane	ND		ug/l	25	7.0	10
Bromodichloromethane	ND		ug/l	5.0	1.9	10
trans-1,3-Dichloropropene	ND		ug/l	5.0	1.6	10
cis-1,3-Dichloropropene	ND		ug/l	5.0	1.4	10
1,3-Dichloropropene, Total	ND		ug/l	5.0	1.4	10
1,1-Dichloropropene	ND		ug/l	25	7.0	10
Bromoform	ND		ug/l	20	6.5	10
1,1,2,2-Tetrachloroethane	ND		ug/l	5.0	1.7	10
Benzene	ND		ug/l	5.0	1.6	10
Toluene	ND		ug/l	25	7.0	10
Ethylbenzene	120		ug/l	25	7.0	10
Chloromethane	ND		ug/l	25	7.0	10
Bromomethane	ND		ug/l	25	7.0	10
Vinyl chloride	ND		ug/l	10	0.71	10
Chloroethane	ND		ug/l	25	7.0	10
1,1-Dichloroethene	ND		ug/l	5.0	1.7	10
trans-1,2-Dichloroethene	ND		ug/l	25	7.0	10

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-02 D

Date Collected: 01/17/19 13:45

Client ID: RMW11_011719

Date Received: 01/17/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	5.0	1.8	10
1,2-Dichlorobenzene	ND		ug/l	25	7.0	10
1,3-Dichlorobenzene	ND		ug/l	25	7.0	10
1,4-Dichlorobenzene	ND		ug/l	25	7.0	10
Methyl tert butyl ether	ND		ug/l	25	7.0	10
p/m-Xylene	ND		ug/l	25	7.0	10
o-Xylene	ND		ug/l	25	7.0	10
Xylenes, Total	ND		ug/l	25	7.0	10
cis-1,2-Dichloroethene	ND		ug/l	25	7.0	10
1,2-Dichloroethene, Total	ND		ug/l	25	7.0	10
Dibromomethane	ND		ug/l	50	10.	10
1,2,3-Trichloropropane	ND		ug/l	25	7.0	10
Acrylonitrile	77		ug/l	50	15.	10
Styrene	ND		ug/l	25	7.0	10
Dichlorodifluoromethane	ND		ug/l	50	10.	10
Acetone	34	J	ug/l	50	15.	10
Carbon disulfide	ND		ug/l	50	10.	10
2-Butanone	ND		ug/l	50	19.	10
Vinyl acetate	ND		ug/l	50	10.	10
4-Methyl-2-pentanone	ND		ug/l	50	10.	10
2-Hexanone	ND		ug/l	50	10.	10
Bromochloromethane	ND		ug/l	25	7.0	10
2,2-Dichloropropane	ND		ug/l	25	7.0	10
1,2-Dibromoethane	ND		ug/l	20	6.5	10
1,3-Dichloropropane	ND		ug/l	25	7.0	10
1,1,1,2-Tetrachloroethane	ND		ug/l	25	7.0	10
Bromobenzene	ND		ug/l	25	7.0	10
n-Butylbenzene	18	J	ug/l	25	7.0	10
sec-Butylbenzene	12	J	ug/l	25	7.0	10
tert-Butylbenzene	ND		ug/l	25	7.0	10
o-Chlorotoluene	ND		ug/l	25	7.0	10
p-Chlorotoluene	ND		ug/l	25	7.0	10
1,2-Dibromo-3-chloropropane	ND		ug/l	25	7.0	10
Hexachlorobutadiene	ND		ug/l	25	7.0	10
Isopropylbenzene	140		ug/l	25	7.0	10
p-Isopropyltoluene	ND		ug/l	25	7.0	10
Naphthalene	360		ug/l	25	7.0	10

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-02 D
 Client ID: RMW11_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:45
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	260		ug/l	25	7.0	10
1,2,3-Trichlorobenzene	ND		ug/l	25	7.0	10
1,2,4-Trichlorobenzene	ND		ug/l	25	7.0	10
1,3,5-Trimethylbenzene	ND		ug/l	25	7.0	10
1,2,4-Trimethylbenzene	13	J	ug/l	25	7.0	10
1,4-Dioxane	ND		ug/l	2500	610	10
p-Diethylbenzene	47		ug/l	20	7.0	10
p-Ethyltoluene	18	J	ug/l	20	7.0	10
1,2,4,5-Tetramethylbenzene	95		ug/l	20	5.4	10
Ethyl ether	ND		ug/l	25	7.0	10
trans-1,4-Dichloro-2-butene	ND		ug/l	25	7.0	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	92		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	91		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-03 D
 Client ID: RMW14_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 12:00
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/22/19 17:47
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	50	14.	20
1,1-Dichloroethane	ND		ug/l	50	14.	20
Chloroform	ND		ug/l	50	14.	20
Carbon tetrachloride	ND		ug/l	10	2.7	20
1,2-Dichloropropane	ND		ug/l	20	2.7	20
Dibromochloromethane	ND		ug/l	10	3.0	20
1,1,2-Trichloroethane	ND		ug/l	30	10.	20
Tetrachloroethene	ND		ug/l	10	3.6	20
Chlorobenzene	ND		ug/l	50	14.	20
Trichlorofluoromethane	ND		ug/l	50	14.	20
1,2-Dichloroethane	ND		ug/l	10	2.6	20
1,1,1-Trichloroethane	ND		ug/l	50	14.	20
Bromodichloromethane	ND		ug/l	10	3.8	20
trans-1,3-Dichloropropene	ND		ug/l	10	3.3	20
cis-1,3-Dichloropropene	ND		ug/l	10	2.9	20
1,3-Dichloropropene, Total	ND		ug/l	10	2.9	20
1,1-Dichloropropene	ND		ug/l	50	14.	20
Bromoform	ND		ug/l	40	13.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	10	3.3	20
Benzene	20		ug/l	10	3.2	20
Toluene	ND		ug/l	50	14.	20
Ethylbenzene	200		ug/l	50	14.	20
Chloromethane	ND		ug/l	50	14.	20
Bromomethane	ND		ug/l	50	14.	20
Vinyl chloride	ND		ug/l	20	1.4	20
Chloroethane	ND		ug/l	50	14.	20
1,1-Dichloroethene	ND		ug/l	10	3.4	20
trans-1,2-Dichloroethene	ND		ug/l	50	14.	20

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-03 D

Date Collected: 01/17/19 12:00

Client ID: RMW14_011719

Date Received: 01/17/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	10	3.5	20
1,2-Dichlorobenzene	ND		ug/l	50	14.	20
1,3-Dichlorobenzene	ND		ug/l	50	14.	20
1,4-Dichlorobenzene	ND		ug/l	50	14.	20
Methyl tert butyl ether	ND		ug/l	50	14.	20
p/m-Xylene	32	J	ug/l	50	14.	20
o-Xylene	ND		ug/l	50	14.	20
Xylenes, Total	32	J	ug/l	50	14.	20
cis-1,2-Dichloroethene	ND		ug/l	50	14.	20
1,2-Dichloroethene, Total	ND		ug/l	50	14.	20
Dibromomethane	ND		ug/l	100	20.	20
1,2,3-Trichloropropane	ND		ug/l	50	14.	20
Acrylonitrile	ND		ug/l	100	30.	20
Styrene	ND		ug/l	50	14.	20
Dichlorodifluoromethane	ND		ug/l	100	20.	20
Acetone	38	J	ug/l	100	29.	20
Carbon disulfide	ND		ug/l	100	20.	20
2-Butanone	ND		ug/l	100	39.	20
Vinyl acetate	ND		ug/l	100	20.	20
4-Methyl-2-pentanone	ND		ug/l	100	20.	20
2-Hexanone	ND		ug/l	100	20.	20
Bromochloromethane	ND		ug/l	50	14.	20
2,2-Dichloropropane	ND		ug/l	50	14.	20
1,2-Dibromoethane	ND		ug/l	40	13.	20
1,3-Dichloropropane	ND		ug/l	50	14.	20
1,1,1,2-Tetrachloroethane	ND		ug/l	50	14.	20
Bromobenzene	ND		ug/l	50	14.	20
n-Butylbenzene	40	J	ug/l	50	14.	20
sec-Butylbenzene	16	J	ug/l	50	14.	20
tert-Butylbenzene	ND		ug/l	50	14.	20
o-Chlorotoluene	ND		ug/l	50	14.	20
p-Chlorotoluene	ND		ug/l	50	14.	20
1,2-Dibromo-3-chloropropane	ND		ug/l	50	14.	20
Hexachlorobutadiene	ND		ug/l	50	14.	20
Isopropylbenzene	180		ug/l	50	14.	20
p-Isopropyltoluene	ND		ug/l	50	14.	20
Naphthalene	280		ug/l	50	14.	20

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-03 D
 Client ID: RMW14_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 12:00
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	380		ug/l	50	14.	20
1,2,3-Trichlorobenzene	ND		ug/l	50	14.	20
1,2,4-Trichlorobenzene	ND		ug/l	50	14.	20
1,3,5-Trimethylbenzene	210		ug/l	50	14.	20
1,2,4-Trimethylbenzene	ND		ug/l	50	14.	20
1,4-Dioxane	ND		ug/l	5000	1200	20
p-Diethylbenzene	42		ug/l	40	14.	20
p-Ethyltoluene	30	J	ug/l	40	14.	20
1,2,4,5-Tetramethylbenzene	120		ug/l	40	11.	20
Ethyl ether	ND		ug/l	50	14.	20
trans-1,4-Dichloro-2-butene	ND		ug/l	50	14.	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	95		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-04
 Client ID: RMW16_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:15
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/22/19 16:20
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-04
 Client ID: RMW16_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:15
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-04
 Client ID: RMW16_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:15
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	109		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-05
 Client ID: RMW17_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 09:40
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/22/19 16:42
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-05
 Client ID: RMW17_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 09:40
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-05
Client ID: RMW17_011719
Sample Location: BRONX, NY

Date Collected: 01/17/19 09:40
Date Received: 01/17/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	107		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-06
 Client ID: GWTB04_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 00:00
 Date Received: 01/17/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/22/19 15:58
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-06
 Client ID: GWTB04_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 00:00
 Date Received: 01/17/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.7	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-06
 Client ID: GWTB04_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 00:00
 Date Received: 01/17/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	107		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/22/19 10:51
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1199942-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/22/19 10:51
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1199942-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/22/19 10:51
Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-06 Batch: WG1199942-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1199942-3 WG1199942-4								
Methylene chloride	110		100		70-130	10		20
1,1-Dichloroethane	99		96		70-130	3		20
Chloroform	98		96		70-130	2		20
Carbon tetrachloride	83		78		63-132	6		20
1,2-Dichloropropane	100		90		70-130	11		20
Dibromochloromethane	99		100		63-130	1		20
1,1,2-Trichloroethane	100		100		70-130	0		20
Tetrachloroethene	93		87		70-130	7		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	85		81		62-150	5		20
1,2-Dichloroethane	90		88		70-130	2		20
1,1,1-Trichloroethane	84		83		67-130	1		20
Bromodichloromethane	94		95		67-130	1		20
trans-1,3-Dichloropropene	85		86		70-130	1		20
cis-1,3-Dichloropropene	88		88		70-130	0		20
1,1-Dichloropropene	86		86		70-130	0		20
Bromoform	100		100		54-136	0		20
1,1,1,2-Tetrachloroethane	100		97		67-130	3		20
Benzene	100		98		70-130	2		20
Toluene	100		100		70-130	0		20
Ethylbenzene	97		95		70-130	2		20
Chloromethane	99		94		64-130	5		20
Bromomethane	96		91		39-139	5		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1199942-3 WG1199942-4								
Vinyl chloride	100		98		55-140	2		20
Chloroethane	120		110		55-138	9		20
1,1-Dichloroethene	96		93		61-145	3		20
trans-1,2-Dichloroethene	99		99		70-130	0		20
Trichloroethene	97		92		70-130	5		20
1,2-Dichlorobenzene	100		99		70-130	1		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		99		70-130	1		20
Methyl tert butyl ether	82		81		63-130	1		20
p/m-Xylene	100		95		70-130	5		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	100		98		70-130	2		20
Dibromomethane	94		96		70-130	2		20
1,2,3-Trichloropropane	99		98		64-130	1		20
Acrylonitrile	98		96		70-130	2		20
Styrene	105		100		70-130	5		20
Dichlorodifluoromethane	87		82		36-147	6		20
Acetone	79		76		58-148	4		20
Carbon disulfide	110		110		51-130	0		20
2-Butanone	82		79		63-138	4		20
Vinyl acetate	100		100		70-130	0		20
4-Methyl-2-pentanone	80		80		59-130	0		20
2-Hexanone	66		68		57-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1199942-3 WG1199942-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	73		69		63-133	6		20
1,2-Dibromoethane	97		98		70-130	1		20
1,3-Dichloropropane	98		100		70-130	2		20
1,1,1,2-Tetrachloroethane	98		97		64-130	1		20
Bromobenzene	100		91		70-130	9		20
n-Butylbenzene	92		88		53-136	4		20
sec-Butylbenzene	92		88		70-130	4		20
tert-Butylbenzene	79		75		70-130	5		20
o-Chlorotoluene	100		94		70-130	6		20
p-Chlorotoluene	99		94		70-130	5		20
1,2-Dibromo-3-chloropropane	79		80		41-144	1		20
Hexachlorobutadiene	86		80		63-130	7		20
Isopropylbenzene	92		83		70-130	10		20
p-Isopropyltoluene	90		86		70-130	5		20
Naphthalene	76		75		70-130	1		20
n-Propylbenzene	96		90		69-130	6		20
1,2,3-Trichlorobenzene	86		84		70-130	2		20
1,2,4-Trichlorobenzene	85		82		70-130	4		20
1,3,5-Trimethylbenzene	98		93		64-130	5		20
1,2,4-Trimethylbenzene	96		92		70-130	4		20
1,4-Dioxane	112		104		56-162	7		20
p-Diethylbenzene	79		82		70-130	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1902340

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-06 Batch: WG1199942-3 WG1199942-4								
p-Ethyltoluene	96		91		70-130	5		20
1,2,4,5-Tetramethylbenzene	71		60	Q	70-130	17		20
Ethyl ether	100		100		59-134	0		20
trans-1,4-Dichloro-2-butene	80		82		70-130	2		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	86		87		70-130
Toluene-d8	98		99		70-130
4-Bromofluorobenzene	89		87		70-130
Dibromofluoromethane	95		95		70-130

SEMIVOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-01
 Client ID: RMW10_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 15:35
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/21/19 12:59
 Analyst: JG

Extraction Method: EPA 3510C
 Extraction Date: 01/19/19 08:51

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-01
 Client ID: RMW10_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 15:35
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	1.2	J	ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		21-120
Phenol-d6	47		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	77		10-120
4-Terphenyl-d14	57		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-01
 Client ID: RMW10_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 15:35
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/22/19 13:20
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 01/19/19 08:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	1.1		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.61		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	4.1		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.05	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	0.03	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.04	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.02	J	ug/l	0.10	0.01	1
Chrysene	0.06	J	ug/l	0.10	0.01	1
Acenaphthylene	0.06	J	ug/l	0.10	0.01	1
Anthracene	0.24		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.02	J	ug/l	0.10	0.01	1
Fluorene	0.70		ug/l	0.10	0.01	1
Phenanthrene	0.88		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.02	J	ug/l	0.10	0.01	1
Pyrene	0.49		ug/l	0.10	0.02	1
2-Methylnaphthalene	1.0		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-01
 Client ID: RMW10_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 15:35
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	46		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	66		10-120
4-Terphenyl-d14	73		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-02
 Client ID: RMW11_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:45
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/21/19 15:18
 Analyst: JG

Extraction Method: EPA 3510C
 Extraction Date: 01/19/19 08:51

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-02
 Client ID: RMW11_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:45
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	69		15-120
2,4,6-Tribromophenol	78		10-120
4-Terphenyl-d14	58		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-02
 Client ID: RMW11_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:45
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/22/19 13:47
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 01/19/19 08:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.19		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.08	J	ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	140	E	ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	0.06	J	ug/l	0.10	0.01	1
Anthracene	0.04	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	0.23		ug/l	0.10	0.01	1
Phenanthrene	0.25		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	0.10		ug/l	0.10	0.02	1
2-Methylnaphthalene	54		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-02

Date Collected: 01/17/19 13:45

Client ID: RMW11_011719

Date Received: 01/17/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	43		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	78		10-120
4-Terphenyl-d14	73		41-149

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-02 D

Date Collected: 01/17/19 13:45

Client ID: RMW11_011719

Date Received: 01/17/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Extraction Method: EPA 3510C

Analytical Method: 1,8270D-SIM

Extraction Date: 01/19/19 08:58

Analytical Date: 01/24/19 21:05

Analyst: CB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	220		ug/l	1.0	0.49	10

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-03
 Client ID: RMW14_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 12:00
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/21/19 15:47
 Analyst: JG

Extraction Method: EPA 3510C
 Extraction Date: 01/19/19 08:51

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	1.7	J	ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-03
 Client ID: RMW14_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 12:00
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	50		21-120
Phenol-d6	41		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	60		15-120
2,4,6-Tribromophenol	76		10-120
4-Terphenyl-d14	50		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-03
 Client ID: RMW14_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 12:00
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/22/19 14:39
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 01/19/19 08:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.41		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	1.0		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	120	E	ug/l	0.10	0.05	1
Benzo(a)anthracene	0.28		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.28		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.33		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.13		ug/l	0.10	0.01	1
Chrysene	0.28		ug/l	0.10	0.01	1
Acenaphthylene	0.10	J	ug/l	0.10	0.01	1
Anthracene	0.32		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.20		ug/l	0.10	0.01	1
Fluorene	0.55		ug/l	0.10	0.01	1
Phenanthrene	1.4		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.03	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.20		ug/l	0.10	0.01	1
Pyrene	0.97		ug/l	0.10	0.02	1
2-Methylnaphthalene	65		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-03
 Client ID: RMW14_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 12:00
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		21-120
Phenol-d6	35		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	70		15-120
2,4,6-Tribromophenol	72		10-120
4-Terphenyl-d14	63		41-149

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-03 D

Date Collected: 01/17/19 12:00

Client ID: RMW14_011719

Date Received: 01/17/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Extraction Method: EPA 3510C

Analytical Method: 1,8270D-SIM

Extraction Date: 01/19/19 08:58

Analytical Date: 01/24/19 21:28

Analyst: CB

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Naphthalene	210		ug/l	1.0	0.49	10

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-04
 Client ID: RMW16_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:15
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/21/19 16:15
 Analyst: JG

Extraction Method: EPA 3510C
 Extraction Date: 01/19/19 08:51

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-04
 Client ID: RMW16_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:15
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		21-120
Phenol-d6	35		10-120
Nitrobenzene-d5	54		23-120
2-Fluorobiphenyl	52		15-120
2,4,6-Tribromophenol	53		10-120
4-Terphenyl-d14	44		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-04
 Client ID: RMW16_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:15
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/22/19 15:05
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 01/19/19 08:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	0.11		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.22		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.04	J	ug/l	0.10	0.02	1
Benzo(a)pyrene	0.06	J	ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.07	J	ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.03	J	ug/l	0.10	0.01	1
Chrysene	0.06	J	ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	0.02	J	ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.05	J	ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	0.08	J	ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.04	J	ug/l	0.10	0.01	1
Pyrene	0.12		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.04	J	ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-04
 Client ID: RMW16_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:15
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	39		21-120
Phenol-d6	32		10-120
Nitrobenzene-d5	54		23-120
2-Fluorobiphenyl	59		15-120
2,4,6-Tribromophenol	62		10-120
4-Terphenyl-d14	57		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-05
 Client ID: RMW17_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 09:40
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/21/19 16:43
 Analyst: JG

Extraction Method: EPA 3510C
 Extraction Date: 01/19/19 08:51

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-05
 Client ID: RMW17_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 09:40
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	1.8	J	ug/l	5.0	0.57	1
2-Methylphenol	1.8	J	ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	1.3	J	ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		21-120
Phenol-d6	45		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	67		15-120
2,4,6-Tribromophenol	74		10-120
4-Terphenyl-d14	59		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-05
 Client ID: RMW17_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 09:40
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/22/19 15:32
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 01/19/19 08:58

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.22		ug/l	0.10	0.01	1
2-Chloronaphthalene	0.07	J	ug/l	0.20	0.02	1
Fluoranthene	0.37		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.42		ug/l	0.10	0.05	1
Benzo(a)anthracene	0.17		ug/l	0.10	0.02	1
Benzo(a)pyrene	0.14		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	0.14		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	0.05	J	ug/l	0.10	0.01	1
Chrysene	0.18		ug/l	0.10	0.01	1
Acenaphthylene	0.18		ug/l	0.10	0.01	1
Anthracene	0.16		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.07	J	ug/l	0.10	0.01	1
Fluorene	0.14		ug/l	0.10	0.01	1
Phenanthrene	0.68		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.02	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.06	J	ug/l	0.10	0.01	1
Pyrene	0.52		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.17		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-05

Date Collected: 01/17/19 09:40

Client ID: RMW17_011719

Date Received: 01/17/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	75		15-120
2,4,6-Tribromophenol	74		10-120
4-Terphenyl-d14	74		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/21/19 11:35
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 01/19/19 08:51

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1199171-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/21/19 11:35
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 01/19/19 08:51

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1199171-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 01/21/19 11:35
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 01/19/19 08:51

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1199171-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	65		15-120
2,4,6-Tribromophenol	45		10-120
4-Terphenyl-d14	57		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 01/22/19 11:35
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 01/19/19 08:58

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-05 Batch: WG1199172-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D-SIM
 Analytical Date: 01/22/19 11:35
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 01/19/19 08:58

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-05 Batch: WG1199172-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	31		21-120
Phenol-d6	31		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	71		15-120
2,4,6-Tribromophenol	41		10-120
4-Terphenyl-d14	74		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1199171-2 WG1199171-3								
Acenaphthene	81		82		37-111	1		30
1,2,4-Trichlorobenzene	80		78		39-98	3		30
Hexachlorobenzene	88		93		40-140	6		30
Bis(2-chloroethyl)ether	77		76		40-140	1		30
2-Chloronaphthalene	91		91		40-140	0		30
1,2-Dichlorobenzene	79		76		40-140	4		30
1,3-Dichlorobenzene	78		72		40-140	8		30
1,4-Dichlorobenzene	76		72		36-97	5		30
3,3'-Dichlorobenzidine	54		58		40-140	7		30
2,4-Dinitrotoluene	82		90		48-143	9		30
2,6-Dinitrotoluene	95		102		40-140	7		30
Fluoranthene	88		94		40-140	7		30
4-Chlorophenyl phenyl ether	85		91		40-140	7		30
4-Bromophenyl phenyl ether	89		97		40-140	9		30
Bis(2-chloroisopropyl)ether	76		75		40-140	1		30
Bis(2-chloroethoxy)methane	83		81		40-140	2		30
Hexachlorobutadiene	88		83		40-140	6		30
Hexachlorocyclopentadiene	91		85		40-140	7		30
Hexachloroethane	77		74		40-140	4		30
Isophorone	90		89		40-140	1		30
Naphthalene	83		82		40-140	1		30
Nitrobenzene	86		82		40-140	5		30
NDPA/DPA	88		94		40-140	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1199171-2 WG1199171-3								
n-Nitrosodi-n-propylamine	94		90		29-132	4		30
Bis(2-ethylhexyl)phthalate	101		101		40-140	0		30
Butyl benzyl phthalate	99		107		40-140	8		30
Di-n-butylphthalate	92		94		40-140	2		30
Di-n-octylphthalate	103		103		40-140	0		30
Diethyl phthalate	93		98		40-140	5		30
Dimethyl phthalate	101		103		40-140	2		30
Benzo(a)anthracene	100		104		40-140	4		30
Benzo(a)pyrene	96		102		40-140	6		30
Benzo(b)fluoranthene	99		98		40-140	1		30
Benzo(k)fluoranthene	100		105		40-140	5		30
Chrysene	93		97		40-140	4		30
Acenaphthylene	93		93		45-123	0		30
Anthracene	94		97		40-140	3		30
Benzo(ghi)perylene	92		103		40-140	11		30
Fluorene	86		87		40-140	1		30
Phenanthrene	90		92		40-140	2		30
Dibenzo(a,h)anthracene	94		103		40-140	9		30
Indeno(1,2,3-cd)pyrene	86		93		40-140	8		30
Pyrene	86		90		26-127	5		30
Biphenyl	86		86		40-140	0		30
4-Chloroaniline	95		94		40-140	1		30
2-Nitroaniline	94		98		52-143	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1199171-2 WG1199171-3								
3-Nitroaniline	60		63		25-145	5		30
4-Nitroaniline	73		84		51-143	14		30
Dibenzofuran	81		85		40-140	5		30
2-Methylnaphthalene	90		86		40-140	5		30
1,2,4,5-Tetrachlorobenzene	86		84		2-134	2		30
Acetophenone	85		83		39-129	2		30
2,4,6-Trichlorophenol	100		108		30-130	8		30
p-Chloro-m-cresol	101	Q	108	Q	23-97	7		30
2-Chlorophenol	85		84		27-123	1		30
2,4-Dichlorophenol	93		95		30-130	2		30
2,4-Dimethylphenol	98		99		30-130	1		30
2-Nitrophenol	90		90		30-130	0		30
4-Nitrophenol	84	Q	86	Q	10-80	2		30
2,4-Dinitrophenol	86		92		20-130	7		30
4,6-Dinitro-o-cresol	88		92		20-164	4		30
Pentachlorophenol	81		90		9-103	11		30
Phenol	68		65		12-110	5		30
2-Methylphenol	92		92		30-130	0		30
3-Methylphenol/4-Methylphenol	93		91		30-130	2		30
2,4,5-Trichlorophenol	99		104		30-130	5		30
Benzoic Acid	62		72		10-164	15		30
Benzyl Alcohol	89		87		26-116	2		30
Carbazole	95		100		55-144	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1199171-2 WG1199171-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	79		75		21-120
Phenol-d6	65		59		10-120
Nitrobenzene-d5	86		82		23-120
2-Fluorobiphenyl	89		89		15-120
2,4,6-Tribromophenol	96		103		10-120
4-Terphenyl-d14	76		82		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 Batch: WG1199172-2 WG1199172-3								
Acenaphthene	62		57		40-140	8		40
2-Chloronaphthalene	76		71		40-140	7		40
Fluoranthene	76		76		40-140	0		40
Hexachlorobutadiene	70		64		40-140	9		40
Naphthalene	69		63		40-140	9		40
Benzo(a)anthracene	72		72		40-140	0		40
Benzo(a)pyrene	65		64		40-140	2		40
Benzo(b)fluoranthene	62		62		40-140	0		40
Benzo(k)fluoranthene	69		68		40-140	1		40
Chrysene	71		70		40-140	1		40
Acenaphthylene	79		74		40-140	7		40
Anthracene	72		69		40-140	4		40
Benzo(ghi)perylene	70		68		40-140	3		40
Fluorene	65		61		40-140	6		40
Phenanthrene	71		68		40-140	4		40
Dibenzo(a,h)anthracene	71		70		40-140	1		40
Indeno(1,2,3-cd)pyrene	84		83		40-140	1		40
Pyrene	76		76		40-140	0		40
2-Methylnaphthalene	76		71		40-140	7		40
Pentachlorophenol	55		58		40-140	5		40
Hexachlorobenzene	73		70		40-140	4		40
Hexachloroethane	58		54		40-140	7		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-05 Batch: WG1199172-2 WG1199172-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	44		39		21-120
Phenol-d6	36		33		10-120
Nitrobenzene-d5	70		65		23-120
2-Fluorobiphenyl	75		70		15-120
2,4,6-Tribromophenol	57		63		10-120
4-Terphenyl-d14	75		75		41-149

PCBS

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-01
Client ID: RMW10_011719
Sample Location: BRONX, NY

Date Collected: 01/17/19 15:35
Date Received: 01/17/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 01/23/19 05:15
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 01/21/19 15:40
Cleanup Method: EPA 3665A
Cleanup Date: 01/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/22/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	A
Decachlorobiphenyl	93		30-150	A
2,4,5,6-Tetrachloro-m-xylene	92		30-150	B
Decachlorobiphenyl	104		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-02
Client ID: RMW11_011719
Sample Location: BRONX, NY

Date Collected: 01/17/19 13:45
Date Received: 01/17/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 01/23/19 07:59
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 01/21/19 15:40
Cleanup Method: EPA 3665A
Cleanup Date: 01/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/22/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	70		30-150	A
2,4,5,6-Tetrachloro-m-xylene	92		30-150	B
Decachlorobiphenyl	89		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-03
Client ID: RMW14_011719
Sample Location: BRONX, NY

Date Collected: 01/17/19 12:00
Date Received: 01/17/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 01/23/19 08:12
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 01/21/19 15:40
Cleanup Method: EPA 3665A
Cleanup Date: 01/22/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/22/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	94		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	99		30-150	B
Decachlorobiphenyl	92		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-04
 Client ID: RMW16_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:15
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8082A
 Analytical Date: 01/23/19 08:26
 Analyst: HT

Extraction Method: EPA 3510C
 Extraction Date: 01/21/19 15:40
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/22/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/22/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89		30-150	A
Decachlorobiphenyl	94		30-150	A
2,4,5,6-Tetrachloro-m-xylene	89		30-150	B
Decachlorobiphenyl	101		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-05
 Client ID: RMW17_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 09:40
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8082A
 Analytical Date: 01/23/19 08:39
 Analyst: HT

Extraction Method: EPA 3510C
 Extraction Date: 01/21/19 15:40
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/22/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/22/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	91		30-150	A
Decachlorobiphenyl	82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	96		30-150	B
Decachlorobiphenyl	90		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8082A
 Analytical Date: 01/22/19 01:20
 Analyst: AWS

Extraction Method: EPA 3510C
 Extraction Date: 01/21/19 15:40
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/21/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/21/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-05 Batch: WG1199538-1						
Aroclor 1016	ND		ug/l	0.082	0.034	A
Aroclor 1221	ND		ug/l	0.082	0.066	A
Aroclor 1232	ND		ug/l	0.082	0.045	A
Aroclor 1242	ND		ug/l	0.082	0.038	A
Aroclor 1248	ND		ug/l	0.082	0.048	A
Aroclor 1254	ND		ug/l	0.082	0.039	A
Aroclor 1260	ND		ug/l	0.082	0.032	A
Aroclor 1262	ND		ug/l	0.082	0.034	A
Aroclor 1268	ND		ug/l	0.082	0.033	A
PCBs, Total	ND		ug/l	0.082	0.032	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		30-150	A
Decachlorobiphenyl	74		30-150	A
2,4,5,6-Tetrachloro-m-xylene	88		30-150	B
Decachlorobiphenyl	85		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1902340

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-05 Batch: WG1199538-2 WG1199538-3									
Aroclor 1016	74		78		40-140	6		50	A
Aroclor 1260	71		77		40-140	8		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		89		30-150	A
Decachlorobiphenyl	78		88		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		89		30-150	B
Decachlorobiphenyl	88		95		30-150	B

PESTICIDES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-01
 Client ID: RMW10_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 15:35
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/22/19 14:44
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/21/19 18:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-01

Date Collected: 01/17/19 15:35

Client ID: RMW10_011719

Date Received: 01/17/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	66		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-01
 Client ID: RMW10_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 15:35
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/21/19 17:04
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/19/19 07:37

Methylation Date: 01/19/19 18:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	93		30-150	A
DCAA	75		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-02
 Client ID: RMW11_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:45
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/22/19 14:56
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/21/19 18:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-02
 Client ID: RMW11_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:45
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	41		30-150	B
Decachlorobiphenyl	46		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-02
 Client ID: RMW11_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:45
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/21/19 17:23
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/19/19 07:37

Methylation Date: 01/19/19 18:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	76		30-150	A
DCAA	76		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-03
 Client ID: RMW14_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 12:00
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/22/19 15:09
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/21/19 18:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-03
 Client ID: RMW14_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 12:00
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	38		30-150	B
Decachlorobiphenyl	34		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-03
 Client ID: RMW14_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 12:00
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/21/19 18:01
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/19/19 07:37

Methylation Date: 01/19/19 18:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	117		30-150	A
DCAA	91		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-04
 Client ID: RMW16_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:15
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/22/19 15:22
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/21/19 18:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	0.005	J	ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-04
 Client ID: RMW16_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:15
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	71		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-04
 Client ID: RMW16_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:15
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/21/19 18:20
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/19/19 07:37

Methylation Date: 01/19/19 18:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	95		30-150	A
DCAA	80		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-05
 Client ID: RMW17_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 09:40
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/22/19 15:35
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/21/19 18:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	0.007	J	ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-05
 Client ID: RMW17_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 09:40
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	61		30-150	B
Decachlorobiphenyl	63		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

SAMPLE RESULTS

Lab ID: L1902340-05
 Client ID: RMW17_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 09:40
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/21/19 18:39
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/19/19 07:37

Methylation Date: 01/19/19 18:48

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	99		30-150	A
DCAA	84		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 01/21/19 16:08
Analyst: DGM

Extraction Method: EPA 8151A
Extraction Date: 01/19/19 07:37

Methylation Date: 01/19/19 18:48

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-05 Batch: WG1199145-1						
2,4-D	ND		ug/l	10.0	0.498	A
2,4,5-T	ND		ug/l	2.00	0.531	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	89		30-150	A
DCAA	77		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/22/19 10:52
Analyst: BM

Extraction Method: EPA 3510C
Extraction Date: 01/21/19 18:00

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-05 Batch: WG1199589-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	ND		ug/l	0.014	0.002	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Endrin ketone	ND		ug/l	0.029	0.003	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
4,4'-DDT	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 01/22/19 10:52
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/21/19 18:00

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-05 Batch: WG1199589-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	A
Decachlorobiphenyl	74		30-150	A
2,4,5,6-Tetrachloro-m-xylene	94		30-150	B
Decachlorobiphenyl	90		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-05 Batch: WG1199145-2 WG1199145-3									
2,4-D	87		84		30-150	4		25	A
2,4,5-T	95		94		30-150	1		25	A
2,4,5-TP (Silvex)	86		85		30-150	1		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	89		88		30-150	A
DCAA	83		98		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-05 Batch: WG1199589-2 WG1199589-3									
Delta-BHC	83		87		30-150	5		20	A
Lindane	81		85		30-150	4		20	A
Alpha-BHC	85		90		30-150	5		20	A
Beta-BHC	91		97		30-150	6		20	A
Heptachlor	79		87		30-150	10		20	A
Aldrin	75		85		30-150	12		20	A
Heptachlor epoxide	91		95		30-150	5		20	A
Endrin	87		91		30-150	5		20	A
Endrin aldehyde	77		78		30-150	0		20	A
Endrin ketone	91		95		30-150	4		20	A
Dieldrin	91		96		30-150	5		20	A
4,4'-DDE	83		90		30-150	8		20	A
4,4'-DDD	85		91		30-150	7		20	A
4,4'-DDT	88		89		30-150	2		20	A
Endosulfan I	84		85		30-150	1		20	A
Endosulfan II	83		88		30-150	6		20	A
Endosulfan sulfate	86		89		30-150	3		20	A
Methoxychlor	96		99		30-150	4		20	A
cis-Chlordane	76		81		30-150	7		20	A
trans-Chlordane	75		82		30-150	9		20	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-05 Batch: WG1199589-2 WG1199589-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	78		84		30-150	A
Decachlorobiphenyl	74		75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		90		30-150	B
Decachlorobiphenyl	79		89		30-150	B

METALS

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-01
 Client ID: RMW10_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 15:35
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.162		mg/l	0.0100	0.00327	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00171		mg/l	0.00050	0.00016	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Barium, Total	0.1480		mg/l	0.00050	0.00017	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Calcium, Total	121.		mg/l	0.100	0.0394	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Chromium, Total	0.00923		mg/l	0.00100	0.00017	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00042	J	mg/l	0.00050	0.00016	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Copper, Total	0.00131		mg/l	0.00100	0.00038	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Iron, Total	8.53		mg/l	0.0500	0.0191	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Lead, Total	0.02811		mg/l	0.00100	0.00034	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Magnesium, Total	26.4		mg/l	0.0700	0.0242	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Manganese, Total	0.1990		mg/l	0.00100	0.00044	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/18/19 12:24	01/21/19 16:53	EPA 7470A	1,7470A	MG
Nickel, Total	0.00463		mg/l	0.00200	0.00055	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Potassium, Total	12.9		mg/l	0.100	0.0309	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Sodium, Total	47.1		mg/l	0.100	0.0293	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
Zinc, Total	0.00426	J	mg/l	0.01000	0.00341	1	01/18/19 13:45	01/22/19 14:54	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/22/19 14:54	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-01
 Client ID: RMW10_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 15:35
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00361	J	mg/l	0.0100	0.00327	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00052	J	mg/l	0.00400	0.00042	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00175		mg/l	0.00050	0.00016	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.1481		mg/l	0.00050	0.00017	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Calcium, Dissolved	126.		mg/l	0.100	0.0394	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00046	J	mg/l	0.00100	0.00017	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00025	J	mg/l	0.00050	0.00016	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Iron, Dissolved	8.00		mg/l	0.0500	0.0191	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.00049	J	mg/l	0.00100	0.00034	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	27.7		mg/l	0.0700	0.0242	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.1942		mg/l	0.00100	0.00044	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/21/19 11:01	01/21/19 23:24	EPA 7470A	1,7470A	MG
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Potassium, Dissolved	13.1		mg/l	0.100	0.0309	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Sodium, Dissolved	50.1		mg/l	0.100	0.0293	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/18/19 11:40	01/22/19 10:26	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-02
 Client ID: RMW11_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:45
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.464		mg/l	0.0100	0.00327	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00723		mg/l	0.00050	0.00016	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Barium, Total	0.02871		mg/l	0.00050	0.00017	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Calcium, Total	40.4		mg/l	0.100	0.0394	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Chromium, Total	0.00609		mg/l	0.00100	0.00017	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00049	J	mg/l	0.00050	0.00016	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Copper, Total	0.00148		mg/l	0.00100	0.00038	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Iron, Total	3.70		mg/l	0.0500	0.0191	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Lead, Total	0.00269		mg/l	0.00100	0.00034	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Magnesium, Total	6.22		mg/l	0.0700	0.0242	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Manganese, Total	0.6418		mg/l	0.00100	0.00044	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/18/19 12:24	01/21/19 16:54	EPA 7470A	1,7470A	MG
Nickel, Total	0.00374		mg/l	0.00200	0.00055	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Potassium, Total	4.11		mg/l	0.100	0.0309	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Sodium, Total	26.9		mg/l	0.100	0.0293	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	01/18/19 13:45	01/22/19 14:58	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/22/19 14:58	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-02
 Client ID: RMW11_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:45
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00488	J	mg/l	0.0100	0.00327	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00055	J	mg/l	0.00400	0.00042	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00746		mg/l	0.00050	0.00016	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.02474		mg/l	0.00050	0.00017	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Calcium, Dissolved	43.2		mg/l	0.100	0.0394	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00019	J	mg/l	0.00100	0.00017	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00017	J	mg/l	0.00050	0.00016	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Iron, Dissolved	2.95		mg/l	0.0500	0.0191	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	6.40		mg/l	0.0700	0.0242	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.6393		mg/l	0.00100	0.00044	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/21/19 11:01	01/21/19 23:29	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00083	J	mg/l	0.00200	0.00055	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Potassium, Dissolved	4.36		mg/l	0.100	0.0309	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Sodium, Dissolved	28.0		mg/l	0.100	0.0293	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/18/19 11:40	01/22/19 10:31	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-03
 Client ID: RMW14_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 12:00
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	1.95		mg/l	0.0100	0.00327	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Arsenic, Total	0.01701		mg/l	0.00050	0.00016	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Barium, Total	0.05478		mg/l	0.00050	0.00017	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Beryllium, Total	0.00014	J	mg/l	0.00050	0.00010	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Calcium, Total	120.		mg/l	0.100	0.0394	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Chromium, Total	0.02835		mg/l	0.00100	0.00017	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00189		mg/l	0.00050	0.00016	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Copper, Total	0.00668		mg/l	0.00100	0.00038	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Iron, Total	14.1		mg/l	0.0500	0.0191	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Lead, Total	0.02247		mg/l	0.00100	0.00034	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Magnesium, Total	23.7		mg/l	0.0700	0.0242	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Manganese, Total	1.003		mg/l	0.00100	0.00044	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/18/19 12:24	01/21/19 16:56	EPA 7470A	1,7470A	MG
Nickel, Total	0.01411		mg/l	0.00200	0.00055	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Potassium, Total	9.14		mg/l	0.100	0.0309	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Sodium, Total	67.0		mg/l	0.100	0.0293	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Vanadium, Total	0.00563		mg/l	0.00500	0.00157	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
Zinc, Total	0.02173		mg/l	0.01000	0.00341	1	01/18/19 13:45	01/22/19 15:02	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	0.024	J	mg/l	0.010	0.010	1		01/22/19 15:02	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-03
 Client ID: RMW14_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 12:00
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.0143		mg/l	0.0100	0.00327	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00047	J	mg/l	0.00400	0.00042	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.01584		mg/l	0.00050	0.00016	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.04556		mg/l	0.00050	0.00017	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Calcium, Dissolved	124.		mg/l	0.100	0.0394	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00089	J	mg/l	0.00100	0.00017	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00025	J	mg/l	0.00050	0.00016	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Iron, Dissolved	10.9		mg/l	0.0500	0.0191	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.00683		mg/l	0.00100	0.00034	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	24.3		mg/l	0.0700	0.0242	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.9499		mg/l	0.00100	0.00044	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/21/19 11:01	01/21/19 23:31	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00102	J	mg/l	0.00200	0.00055	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Potassium, Dissolved	9.13		mg/l	0.100	0.0309	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Sodium, Dissolved	69.7		mg/l	0.100	0.0293	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/18/19 11:40	01/22/19 10:35	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-04
 Client ID: RMW16_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:15
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	1.54		mg/l	0.0100	0.00327	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Antimony, Total	0.00126	J	mg/l	0.00400	0.00042	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00244		mg/l	0.00050	0.00016	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Barium, Total	0.1418		mg/l	0.00050	0.00017	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Calcium, Total	267.		mg/l	0.100	0.0394	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Chromium, Total	0.01498		mg/l	0.00100	0.00017	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00192		mg/l	0.00050	0.00016	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Copper, Total	0.01261		mg/l	0.00100	0.00038	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Iron, Total	4.10		mg/l	0.0500	0.0191	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Lead, Total	0.05401		mg/l	0.00100	0.00034	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Magnesium, Total	57.2		mg/l	0.0700	0.0242	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Manganese, Total	0.3968		mg/l	0.00100	0.00044	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Mercury, Total	0.00018	J	mg/l	0.00020	0.00006	1	01/18/19 12:24	01/21/19 17:01	EPA 7470A	1,7470A	MG
Nickel, Total	0.01051		mg/l	0.00200	0.00055	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Potassium, Total	17.2		mg/l	0.100	0.0309	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Selenium, Total	0.00292	J	mg/l	0.00500	0.00173	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Sodium, Total	76.6		mg/l	0.100	0.0293	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Vanadium, Total	0.00442	J	mg/l	0.00500	0.00157	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
Zinc, Total	0.02406		mg/l	0.01000	0.00341	1	01/18/19 13:45	01/22/19 15:06	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/22/19 15:06	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-04
 Client ID: RMW16_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 13:15
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00139	J	mg/l	0.00400	0.00042	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00114		mg/l	0.00050	0.00016	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.1260		mg/l	0.00050	0.00017	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Calcium, Dissolved	263.		mg/l	0.100	0.0394	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00033	J	mg/l	0.00100	0.00017	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00099		mg/l	0.00050	0.00016	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.00092	J	mg/l	0.00100	0.00038	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Iron, Dissolved	1.15		mg/l	0.0500	0.0191	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.00101		mg/l	0.00100	0.00034	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	57.2		mg/l	0.0700	0.0242	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.3540		mg/l	0.00100	0.00044	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/21/19 11:01	01/21/19 23:32	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00239		mg/l	0.00200	0.00055	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Potassium, Dissolved	16.5		mg/l	0.100	0.0309	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Selenium, Dissolved	0.00219	J	mg/l	0.00500	0.00173	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Sodium, Dissolved	76.5		mg/l	0.100	0.0293	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM
Zinc, Dissolved	0.01140		mg/l	0.01000	0.00341	1	01/18/19 11:40	01/22/19 10:54	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-05
 Client ID: RMW17_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 09:40
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.608		mg/l	0.0100	0.00327	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00273		mg/l	0.00050	0.00016	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Barium, Total	0.1084		mg/l	0.00050	0.00017	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Calcium, Total	212.		mg/l	0.100	0.0394	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Chromium, Total	0.00711		mg/l	0.00100	0.00017	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00101		mg/l	0.00050	0.00016	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Copper, Total	0.00501		mg/l	0.00100	0.00038	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Iron, Total	1.92		mg/l	0.0500	0.0191	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Lead, Total	0.01982		mg/l	0.00100	0.00034	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Magnesium, Total	62.2		mg/l	0.0700	0.0242	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Manganese, Total	0.2988		mg/l	0.00100	0.00044	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/18/19 12:24	01/21/19 17:03	EPA 7470A	1,7470A	MG
Nickel, Total	0.00546		mg/l	0.00200	0.00055	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Potassium, Total	19.8		mg/l	0.100	0.0309	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Sodium, Total	60.0		mg/l	0.100	0.0293	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Vanadium, Total	0.00445	J	mg/l	0.00500	0.00157	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
Zinc, Total	0.01551		mg/l	0.01000	0.00341	1	01/18/19 13:45	01/22/19 15:10	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/22/19 15:10	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-05
 Client ID: RMW17_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 09:40
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00370	J	mg/l	0.0100	0.00327	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Antimony, Dissolved	ND		mg/l	0.00400	0.00042	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00194		mg/l	0.00050	0.00016	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.1037		mg/l	0.00050	0.00017	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Calcium, Dissolved	202.		mg/l	0.100	0.0394	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00046	J	mg/l	0.00100	0.00017	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00048	J	mg/l	0.00050	0.00016	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.558		mg/l	0.0500	0.0191	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	60.9		mg/l	0.0700	0.0242	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Manganese, Dissolved	0.2636		mg/l	0.00100	0.00044	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00006	1	01/21/19 11:01	01/21/19 23:49	EPA 7470A	1,7470A	MG
Nickel, Dissolved	0.00254		mg/l	0.00200	0.00055	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Potassium, Dissolved	18.5		mg/l	0.100	0.0309	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Sodium, Dissolved	57.2		mg/l	0.100	0.0293	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	0.00249	J	mg/l	0.00500	0.00157	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM
Zinc, Dissolved	0.00609	J	mg/l	0.01000	0.00341	1	01/18/19 11:40	01/22/19 10:58	EPA 3005A	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1198915-1										
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Antimony, Dissolved	0.00059	J	mg/l	0.00400	0.00042	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Barium, Dissolved	ND		mg/l	0.00050	0.00017	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Calcium, Dissolved	ND		mg/l	0.100	0.0394	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Iron, Dissolved	0.0260	J	mg/l	0.0500	0.0191	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Magnesium, Dissolved	ND		mg/l	0.0700	0.0242	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Potassium, Dissolved	ND		mg/l	0.100	0.0309	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Sodium, Dissolved	0.0319	J	mg/l	0.100	0.0293	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM
Zinc, Dissolved	ND		mg/l	0.01000	0.00341	1	01/18/19 11:40	01/22/19 09:59	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1198950-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Antimony, Total	0.00048	J	mg/l	0.00400	0.00042	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Barium, Total	ND		mg/l	0.00050	0.00017	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Method Blank Analysis Batch Quality Control

Beryllium, Total	ND		mg/l	0.00050	0.00010	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Calcium, Total	ND		mg/l	0.100	0.0394	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Copper, Total	ND		mg/l	0.00100	0.00038	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Iron, Total	0.0250	J	mg/l	0.0500	0.0191	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Nickel, Total	ND		mg/l	0.00200	0.00055	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Sodium, Total	ND		mg/l	0.100	0.0293	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	01/18/19 13:45	01/22/19 13:47	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1199010-1										
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/18/19 12:24	01/21/19 16:14	1,7470A	MG

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-05 Batch: WG1199430-1										
Mercury, Dissolved	0.00008	J	mg/l	0.00020	0.00006	1	01/21/19 11:01	01/21/19 23:20	1,7470A	MG



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1198915-2								
Aluminum, Dissolved	100		-		80-120	-		
Antimony, Dissolved	101		-		80-120	-		
Arsenic, Dissolved	104		-		80-120	-		
Barium, Dissolved	107		-		80-120	-		
Beryllium, Dissolved	109		-		80-120	-		
Cadmium, Dissolved	115		-		80-120	-		
Calcium, Dissolved	106		-		80-120	-		
Chromium, Dissolved	104		-		80-120	-		
Cobalt, Dissolved	106		-		80-120	-		
Copper, Dissolved	104		-		80-120	-		
Iron, Dissolved	116		-		80-120	-		
Lead, Dissolved	109		-		80-120	-		
Magnesium, Dissolved	110		-		80-120	-		
Manganese, Dissolved	101		-		80-120	-		
Nickel, Dissolved	107		-		80-120	-		
Potassium, Dissolved	106		-		80-120	-		
Selenium, Dissolved	106		-		80-120	-		
Silver, Dissolved	108		-		80-120	-		
Sodium, Dissolved	104		-		80-120	-		
Thallium, Dissolved	107		-		80-120	-		
Vanadium, Dissolved	104		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1198915-2					
Zinc, Dissolved	110	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1198950-2					
Aluminum, Total	104	-	80-120	-	
Antimony, Total	103	-	80-120	-	
Arsenic, Total	103	-	80-120	-	
Barium, Total	107	-	80-120	-	
Beryllium, Total	107	-	80-120	-	
Cadmium, Total	114	-	80-120	-	
Calcium, Total	101	-	80-120	-	
Chromium, Total	99	-	80-120	-	
Cobalt, Total	103	-	80-120	-	
Copper, Total	100	-	80-120	-	
Iron, Total	112	-	80-120	-	
Lead, Total	111	-	80-120	-	
Magnesium, Total	107	-	80-120	-	
Manganese, Total	100	-	80-120	-	
Nickel, Total	104	-	80-120	-	
Potassium, Total	101	-	80-120	-	
Selenium, Total	111	-	80-120	-	
Silver, Total	105	-	80-120	-	
Sodium, Total	104	-	80-120	-	
Thallium, Total	105	-	80-120	-	
Vanadium, Total	103	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1198950-2					
Zinc, Total	115	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1199010-2					
Mercury, Total	110	-	80-120	-	
Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 Batch: WG1199430-2					
Mercury, Dissolved	114	-	80-120	-	

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1198915-3 QC Sample: L1902346-01 Client ID: MS Sample												
Aluminum, Dissolved	0.009J	2	1.92	96	-	-	-	-	75-125	-	-	20
Antimony, Dissolved	0.0006J	0.5	0.5548	111	-	-	-	-	75-125	-	-	20
Arsenic, Dissolved	0.00054	0.12	0.1234	102	-	-	-	-	75-125	-	-	20
Barium, Dissolved	0.1596	2	2.181	101	-	-	-	-	75-125	-	-	20
Beryllium, Dissolved	ND	0.05	0.05312	106	-	-	-	-	75-125	-	-	20
Cadmium, Dissolved	ND	0.051	0.05473	107	-	-	-	-	75-125	-	-	20
Calcium, Dissolved	44.4	10	54.6	102	-	-	-	-	75-125	-	-	20
Chromium, Dissolved	0.00041J	0.2	0.1993	100	-	-	-	-	75-125	-	-	20
Cobalt, Dissolved	0.0004J	0.5	0.5116	102	-	-	-	-	75-125	-	-	20
Copper, Dissolved	ND	0.25	0.2522	101	-	-	-	-	75-125	-	-	20
Iron, Dissolved	31.0	1	32.2	120	-	-	-	-	75-125	-	-	20
Lead, Dissolved	ND	0.51	0.5227	102	-	-	-	-	75-125	-	-	20
Magnesium, Dissolved	12.9	10	23.6	107	-	-	-	-	75-125	-	-	20
Manganese, Dissolved	1.540	0.5	1.985	89	-	-	-	-	75-125	-	-	20
Nickel, Dissolved	ND	0.5	0.5174	103	-	-	-	-	75-125	-	-	20
Potassium, Dissolved	12.4	10	22.2	98	-	-	-	-	75-125	-	-	20
Selenium, Dissolved	ND	0.12	0.118	98	-	-	-	-	75-125	-	-	20
Silver, Dissolved	ND	0.05	0.05155	103	-	-	-	-	75-125	-	-	20
Sodium, Dissolved	62.8	10	70.8	80	-	-	-	-	75-125	-	-	20
Thallium, Dissolved	ND	0.12	0.1222	102	-	-	-	-	75-125	-	-	20
Vanadium, Dissolved	0.0018J	0.5	0.5128	102	-	-	-	-	75-125	-	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1198915-3 QC Sample: L1902346-01 Client ID: MS Sample									
Zinc, Dissolved	ND	0.5	0.5250	105	-	-	75-125	-	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1198950-3 QC Sample: L1902215-01 Client ID: MS Sample									
Aluminum, Total	ND	2	1.99	100	-	-	75-125	-	20
Antimony, Total	ND	0.5	0.5783	116	-	-	75-125	-	20
Arsenic, Total	ND	0.12	0.1325	110	-	-	75-125	-	20
Barium, Total	0.0103	2	2.065	103	-	-	75-125	-	20
Beryllium, Total	ND	0.05	0.05218	104	-	-	75-125	-	20
Cadmium, Total	ND	0.051	0.05296	104	-	-	75-125	-	20
Calcium, Total	842.	10	826	0	Q	-	75-125	-	20
Chromium, Total	ND	0.2	0.1919	96	-	-	75-125	-	20
Cobalt, Total	ND	0.5	0.4832	97	-	-	75-125	-	20
Copper, Total	ND	0.25	0.2420	97	-	-	75-125	-	20
Iron, Total	0.714	1	1.77	106	-	-	75-125	-	20
Lead, Total	ND	0.51	0.5481	107	-	-	75-125	-	20
Magnesium, Total	388.	10	382	0	Q	-	75-125	-	20
Manganese, Total	0.7297	0.5	1.191	92	-	-	75-125	-	20
Nickel, Total	ND	0.5	0.4890	98	-	-	75-125	-	20
Potassium, Total	28.8	10	38.5	97	-	-	75-125	-	20
Selenium, Total	ND	0.12	0.126	105	-	-	75-125	-	20
Silver, Total	ND	0.05	0.05009	100	-	-	75-125	-	20
Sodium, Total	2410	10	2360	0	Q	-	75-125	-	20
Thallium, Total	ND	0.12	0.1163	97	-	-	75-125	-	20
Vanadium, Total	ND	0.5	0.5274	105	-	-	75-125	-	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1198950-3 QC Sample: L1902215-01 Client ID: MS Sample									
Zinc, Total	ND	0.5	0.4786	96	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1199010-3 WG1199010-4 QC Sample: L1901984-05 Client ID: MS Sample									
Mercury, Total	ND	0.005	0.00477	96	0.00475	95	75-125	1	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1199430-3 QC Sample: L1902340-01 Client ID: RMW10_011719									
Mercury, Dissolved	ND	0.005	0.00454	91	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1902340

Report Date: 01/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1198915-4 QC Sample: L1902346-01 Client ID: DUP Sample						
Arsenic, Dissolved	0.00054	0.00058	mg/l	6		20
Barium, Dissolved	0.1596	0.1611	mg/l	1		20
Cadmium, Dissolved	ND	ND	mg/l	NC		20
Chromium, Dissolved	0.00041J	0.00049J	mg/l	NC		20
Copper, Dissolved	ND	ND	mg/l	NC		20
Lead, Dissolved	ND	ND	mg/l	NC		20
Manganese, Dissolved	1.540	1.555	mg/l	1		20
Selenium, Dissolved	ND	ND	mg/l	NC		20
Silver, Dissolved	ND	ND	mg/l	NC		20
Zinc, Dissolved	ND	ND	mg/l	NC		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1902340

Report Date: 01/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1198950-4 QC Sample: L1902215-01 Client ID: DUP Sample					
Aluminum, Total	ND	ND	mg/l	NC	20
Arsenic, Total	ND	ND	mg/l	NC	20
Beryllium, Total	ND	ND	mg/l	NC	20
Cadmium, Total	ND	ND	mg/l	NC	20
Calcium, Total	842.	839	mg/l	0	20
Chromium, Total	ND	ND	mg/l	NC	20
Cobalt, Total	ND	ND	mg/l	NC	20
Copper, Total	ND	0.01642	mg/l	NC	20
Iron, Total	0.714	0.697	mg/l	2	20
Lead, Total	ND	ND	mg/l	NC	20
Magnesium, Total	388.	386	mg/l	1	20
Manganese, Total	0.7297	0.7428	mg/l	2	20
Nickel, Total	ND	ND	mg/l	NC	20
Potassium, Total	28.8	28.8	mg/l	0	20
Sodium, Total	2410	2400	mg/l	0	20
Zinc, Total	ND	ND	mg/l	NC	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-05 QC Batch ID: WG1199430-4 QC Sample: L1902340-01 Client ID: RMW10_011719					
Mercury, Dissolved	ND	ND	mg/l	NC	20

INORGANICS & MISCELLANEOUS

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-01
 Client ID: RMW10_011719
 Sample Location: BRONX, NY

Date Collected: 01/17/19 15:35
 Date Received: 01/17/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.006		mg/l	0.005	0.001	1	01/18/19 17:40	01/21/19 14:15	1,9010C/9012B	LH
Chromium, Hexavalent	0.006	J	mg/l	0.010	0.003	1	01/18/19 04:40	01/18/19 05:11	1,7196A	GD



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-02

Date Collected: 01/17/19 13:45

Client ID: RMW11_011719

Date Received: 01/17/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	01/18/19 17:40	01/21/19 13:29	1,9010C/9012B	LH
Chromium, Hexavalent	0.004	J	mg/l	0.010	0.003	1	01/18/19 04:40	01/18/19 05:11	1,7196A	GD



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-03

Date Collected: 01/17/19 12:00

Client ID: RMW14_011719

Date Received: 01/17/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.004	J	mg/l	0.005	0.001	1	01/18/19 17:40	01/21/19 13:30	1,9010C/9012B	LH
Chromium, Hexavalent	0.004	J	mg/l	0.010	0.003	1	01/18/19 04:40	01/18/19 05:13	1,7196A	GD



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-04

Date Collected: 01/17/19 13:15

Client ID: RMW16_011719

Date Received: 01/17/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.009		mg/l	0.005	0.001	1	01/18/19 17:40	01/21/19 14:16	1,9010C/9012B	LH
Chromium, Hexavalent	0.008	J	mg/l	0.010	0.003	1	01/18/19 04:40	01/18/19 05:13	1,7196A	GD



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**SAMPLE RESULTS**

Lab ID: L1902340-05

Date Collected: 01/17/19 09:40

Client ID: RMW17_011719

Date Received: 01/17/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	01/18/19 17:40	01/21/19 13:32	1,9010C/9012B	LH
Chromium, Hexavalent	0.005	J	mg/l	0.010	0.003	1	01/18/19 04:40	01/18/19 05:14	1,7196A	GD



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1198765-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/18/19 04:40	01/18/19 05:10	1,7196A	GD
General Chemistry - Westborough Lab for sample(s): 01-05 Batch: WG1199045-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	01/18/19 17:40	01/21/19 13:01	1,9010C/9012B	LH

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1902340

Report Date: 01/25/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1198765-2								
Chromium, Hexavalent	103		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 Batch: WG1199045-2 WG1199045-3								
Cyanide, Total	100		95		85-115	5		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1198765-4 QC Sample: L1902340-01 Client ID: RMW10_011719												
Chromium, Hexavalent	0.006J	0.1	0.101	101	-	-	-	-	85-115	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1199045-4 WG1199045-5 QC Sample: L1902340-01 Client ID: RMW10_011719												
Cyanide, Total	0.006	0.2	0.195	94	0.189	0.189	91	91	80-120	3	3	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1902340

Report Date: 01/25/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1198765-3 QC Sample: L1902340-01 Client ID: RMW10_011719						
Chromium, Hexavalent	0.006J	0.004J	mg/l	NC		20

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1902340**Project Number:** 170487001**Report Date:** 01/25/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1902340-01A	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-01B	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-01C	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-01D	Plastic 250ml HNO3 preserved	A	<2	<2	2.3	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1902340-01E	Plastic 250ml HNO3 preserved	A	<2	<2	2.3	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1902340-01F	Plastic 250ml NaOH preserved	A	>12	>12	2.3	Y	Absent		TCN-9010(14)
L1902340-01G	Plastic 500ml unpreserved	A	7	7	2.3	Y	Absent		HEXCR-7196(1)
L1902340-01H	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8082-LVI(7)
L1902340-01I	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8082-LVI(7)
L1902340-01J	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8081(7)
L1902340-01K	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8081(7)
L1902340-01L	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8270-LVI(7)
L1902340-01M	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8270-LVI(7)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Serial_No:01251913:55
Lab Number: L1902340
Report Date: 01/25/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1902340-01N	Amber 1000ml unpreserved	A	7	7	2.3	Y	Absent		HERB-APA(7)
L1902340-01O	Amber 1000ml unpreserved	A	7	7	2.3	Y	Absent		HERB-APA(7)
L1902340-02A	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-02B	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-02C	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-02D	Plastic 60ml HNO3 preserved	B	7	<2	3.6	N	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1902340-02D1	Plastic 60ml HNO3 preserved	B	7	<2	3.6	N	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1902340-02D2	Plastic 60ml HNO3 preserved	B	7	<2	3.6	N	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1902340-02D3	Plastic 60ml HNO3 preserved	B	7	<2	3.6	N	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Serial_No:01251913:55
Lab Number: L1902340
Report Date: 01/25/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1902340-02E	Plastic 250ml HNO3 preserved	B	<2	<2	3.6	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1902340-02F	Plastic 250ml NaOH preserved	B	>12	>12	3.6	Y	Absent		TCN-9010(14)
L1902340-02G	Plastic 500ml unpreserved	B	7	7	3.6	Y	Absent		HEXCR-7196(1)
L1902340-02H	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8082-LVI(7)
L1902340-02I	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8082-LVI(7)
L1902340-02J	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8081(7)
L1902340-02K	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8081(7)
L1902340-02L	Amber 250ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8270-LVI(7)
L1902340-02M	Amber 250ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8270-LVI(7)
L1902340-02N	Amber 1000ml unpreserved	B	7	7	3.6	Y	Absent		HERB-APA(7)
L1902340-02O	Amber 1000ml unpreserved	B	7	7	3.6	Y	Absent		HERB-APA(7)
L1902340-03A	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-03B	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-03C	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-03D	Plastic 250ml HNO3 preserved	C	7	<2	2.9	N	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1902340-03E	Plastic 250ml HNO3 preserved	C	<2	<2	2.9	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1902340

Project Number: 170487001

Report Date: 01/25/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1902340-03F	Plastic 250ml NaOH preserved	C	>12	>12	2.9	Y	Absent		TCN-9010(14)
L1902340-03G	Plastic 500ml unpreserved	C	7	7	2.9	Y	Absent		HEXCR-7196(1)
L1902340-03H	Amber 120ml unpreserved	C	7	7	2.9	Y	Absent		NYTCL-8082-LVI(7)
L1902340-03I	Amber 120ml unpreserved	C	7	7	2.9	Y	Absent		NYTCL-8082-LVI(7)
L1902340-03J	Amber 120ml unpreserved	C	7	7	2.9	Y	Absent		NYTCL-8081(7)
L1902340-03K	Amber 120ml unpreserved	C	7	7	2.9	Y	Absent		NYTCL-8081(7)
L1902340-03L	Amber 250ml unpreserved	C	7	7	2.9	Y	Absent		NYTCL-8270-LVI(7)
L1902340-03M	Amber 250ml unpreserved	C	7	7	2.9	Y	Absent		NYTCL-8270-LVI(7)
L1902340-03N	Amber 1000ml unpreserved	C	7	7	2.9	Y	Absent		HERB-APA(7)
L1902340-03O	Amber 1000ml unpreserved	C	7	7	2.9	Y	Absent		HERB-APA(7)
L1902340-04A	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-04B	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-04C	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-04D	Plastic 250ml HNO3 preserved	A	<2	<2	2.3	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1902340-04E	Plastic 250ml HNO3 preserved	A	<2	<2	2.3	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1902340-04F	Plastic 250ml NaOH preserved	A	>12	>12	2.3	Y	Absent		TCN-9010(14)
L1902340-04G	Plastic 500ml unpreserved	A	7	7	2.3	Y	Absent		HEXCR-7196(1)
L1902340-04H	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8082-LVI(7)
L1902340-04I	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8082-LVI(7)
L1902340-04J	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8081(7)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Serial_No:01251913:55
Lab Number: L1902340
Report Date: 01/25/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1902340-04K	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8081(7)
L1902340-04L	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8270-LVI(7)
L1902340-04M	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8270-LVI(7)
L1902340-04N	Amber 1000ml unpreserved	A	7	7	2.3	Y	Absent		HERB-APA(7)
L1902340-04O	Amber 1000ml unpreserved	A	7	7	2.3	Y	Absent		HERB-APA(7)
L1902340-05A	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-05B	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-05C	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-05D	Plastic 250ml HNO3 preserved	C	<2	<2	2.9	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1902340-05E	Plastic 250ml HNO3 preserved	C	<2	<2	2.9	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1902340-05F	Plastic 250ml NaOH preserved	C	>12	>12	2.9	Y	Absent		TCN-9010(14)
L1902340-05G	Plastic 500ml unpreserved	C	7	7	2.9	Y	Absent		HEXCR-7196(1)
L1902340-05H	Amber 120ml unpreserved	C	7	7	2.9	Y	Absent		NYTCL-8082-LVI(7)
L1902340-05I	Amber 120ml unpreserved	C	7	7	2.9	Y	Absent		NYTCL-8082-LVI(7)
L1902340-05J	Amber 120ml unpreserved	C	7	7	2.9	Y	Absent		NYTCL-8081(7)
L1902340-05K	Amber 120ml unpreserved	C	7	7	2.9	Y	Absent		NYTCL-8081(7)
L1902340-05L	Amber 250ml unpreserved	C	7	7	2.9	Y	Absent		NYTCL-8270-LVI(7)
L1902340-05M	Amber 250ml unpreserved	C	7	7	2.9	Y	Absent		NYTCL-8270-LVI(7)
L1902340-05N	Amber 1000ml unpreserved	C	7	7	2.9	Y	Absent		HERB-APA(7)
L1902340-05O	Amber 1000ml unpreserved	C	7	7	2.9	Y	Absent		HERB-APA(7)

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Serial_No:01251913:55

Lab Number: L1902340

Report Date: 01/25/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1902340-06A	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)
L1902340-06B	Vial HCl preserved	C	NA		2.9	Y	Absent		NYTCL-8260(14)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1902340
Report Date: 01/25/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page of		Date Rec'd in Lab 1/18/19		ALPHA Job # 4902340	
		Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Project Information Project Name: Gerard Ave. + E. 146th St. Project Location: Bronx NY Project # 170487001 (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input checked="" type="checkbox"/> ASP-A 1/17/19 <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQiS (1 File) <input checked="" type="checkbox"/> EQiS (4 File) <input type="checkbox"/> Other	
Client Information Client: Langan Engineering Address: 21 Penn Plaza, 360 W. 31st St 8th Fl., NY, NY 10001-2727 Phone: (212) 479-5400 Fax: (212) 479-5444 Email: jleung@langan.com		Project Manager: Julia Leung ALPHAQuote #:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:			
Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		These samples have been previously analyzed by Alpha <input type="checkbox"/>		ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)		Total Bottles	
Other project specific requirements/comments: Please also cc: datamanagement@langan.com and vzuluaga@langan.com Please specify Metals or TAL.		ALPHA Lab ID (Lab Use Only) Sample ID Collection Date Time Sample Matrix Sampler's Initials Part 375/TCL VOCs Part 375/TCL SVOCs Part 375/TCL PCBs Pesticides Herbicides TAL Metals (total & dissolved) Hexavalent Chromium Total Cyanide Sample Specific Comments							
		RMW10_011719 1/17/19 1535 GW JL		X X X X X X X X					
		RMW11_011719 JL						Please preserve dissolved metals at lab	
		RMW14_011719 JL						please preserve dissolved metals at lab	
		RMW16_011719 JL							
		RMW17_011719 JL							
		GWTB04_011719 - - AG JL		X				All dissolved metals field filtered	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
		Relinquished By: Paul Mayella		Date/Time: 1/17/19 - 4:00		Received By: Paul Mayella		Date/Time: 1/17/19 16:00	
		1/18/19 00:00		1/17/19 00:00		1/17/19 00:00			



ANALYTICAL REPORT

Lab Number:	L1930730
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	404 EXTERIOR STREET
Project Number:	170487001
Report Date:	07/27/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1930730-01	RMW25_071219	WATER	BRONX, NY	07/12/19 10:35	07/12/19
L1930730-02	RMW23_071219	WATER	BRONX, NY	07/12/19 13:10	07/12/19
L1930730-03	GWTB05_071219	WATER	BRONX, NY	07/12/19 00:00	07/12/19
L1930730-04	GWFB_071219	WATER	BRONX, NY	07/12/19 13:00	07/12/19
L1930730-05	GWDUP_071219	WATER	BRONX, NY	07/12/19 00:00	07/12/19

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Case Narrative (continued)

Report Submission

July 27, 2019: This final report includes the results of all requested analyses.

July 16, 2019: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L1930730-04: The Field Blank has a result for acetone present above the reporting limit. The sample was verified as being labeled correctly by the laboratory and the previous analysis showed there was no potential for carry over.

Perfluorinated Alkyl Acids by Isotope Dilution

L1930730-05: Extracted Internal Standard recoveries were outside the acceptance criteria for individual analytes. Please refer to the surrogate section of the report for details.

Total Metals

The WG1259915-1 Method Blank, associated with L1930730-01, -02, -04, and -05, has a concentration above the reporting limit for manganese. Since the sample was non-detect to the RL or had results greater than 10x the blank concentration for this analyte, no further actions were taken. The results of the original analysis are reported.

The WG1259915-3 MS recovery, performed on L1930730-01, is outside the acceptance criteria for aluminum (159%). A post digestion spike was performed and yielded an unacceptable recovery of 146%. The serial dilution recovery was acceptable; therefore, the matrix test passed for the sample matrix.

The WG1259915-3 MS recoveries, performed on L1930730-01, are outside the acceptance criteria for antimony (128%), magnesium (126%) and manganese (130%). A post digestion spike was performed and was within acceptance criteria.

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Case Narrative (continued)

The WG1259915-3 MS recoveries for calcium (165%), iron (210%) and sodium (55%), performed on L1930730-01, do not apply because the sample concentrations are greater than four times the spike amount added.

Dissolved Metals

The WG1259932-3 MS recovery for sodium (11%), performed on L1930730-01, does not apply because the sample concentration is greater than four times the spike amount added.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Lisa Westerlind

Title: Technical Director/Representative

Date: 07/27/19

ORGANICS

VOLATILES

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
 Client ID: RMW25_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 07/14/19 14:27
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	0.82	J	ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	2.7		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
Client ID: RMW25_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
Client ID: RMW25_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	106		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
 Client ID: RMW23_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 07/14/19 14:55
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.32	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
Client ID: RMW23_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	1.1	J	ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	1.1	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.5	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	4.9		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
Client ID: RMW23_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	105		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-03
 Client ID: GWTB05_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
 Date Received: 07/12/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 07/14/19 12:05
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-03
Client ID: GWTB05_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
Date Received: 07/12/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-03
Client ID: GWTB05_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
Date Received: 07/12/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	103		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
 Client ID: GWFB_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 07/14/19 12:34
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
Client ID: GWFB_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	5.1		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
Client ID: GWFB_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	106		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
 Client ID: GWDUP_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 07/14/19 15:23
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	0.32	J	ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
Client ID: GWDUP_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	1.1	J	ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	1.1	J	ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.3	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	4.8		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
Client ID: GWDUP_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	0.77	J	ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	102		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/14/19 11:37
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1259943-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 07/14/19 11:37
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1259943-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/14/19 11:37
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05 Batch: WG1259943-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	108		70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1259943-3 WG1259943-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		96		70-130	4		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	95		93		70-130	2		20
Dibromochloromethane	100		100		63-130	0		20
1,1,2-Trichloroethane	110		100		70-130	10		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	100		99		62-150	1		20
1,2-Dichloroethane	95		92		70-130	3		20
1,1,1-Trichloroethane	100		100		67-130	0		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	94		95		70-130	1		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	97		99		54-136	2		20
1,1,2,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	110		100		70-130	10		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	70		69		64-130	1		20
Bromomethane	89		81		39-139	9		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1259943-3 WG1259943-4								
Vinyl chloride	88		86		55-140	2		20
Chloroethane	91		91		55-138	0		20
1,1-Dichloroethene	110		100		61-145	10		20
trans-1,2-Dichloroethene	110		100		70-130	10		20
Trichloroethene	110		100		70-130	10		20
1,2-Dichlorobenzene	100		99		70-130	1		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	110		100		63-130	10		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	110		100		70-130	10		20
Dibromomethane	100		97		70-130	3		20
1,2,3-Trichloropropane	100		99		64-130	1		20
Acrylonitrile	97		90		70-130	7		20
Styrene	100		100		70-130	0		20
Dichlorodifluoromethane	85		82		36-147	4		20
Acetone	100		96		58-148	4		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	92		89		63-138	3		20
Vinyl acetate	89		86		70-130	3		20
4-Methyl-2-pentanone	100		90		59-130	11		20
2-Hexanone	86		87		57-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1259943-3 WG1259943-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	110		110		63-133	0		20
1,2-Dibromoethane	100		100		70-130	0		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	100		99		64-130	1		20
Bromobenzene	100		99		70-130	1		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	81		79		70-130	3		20
tert-Butylbenzene	110		100		70-130	10		20
o-Chlorotoluene	120		120		70-130	0		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	100		100		41-144	0		20
Hexachlorobutadiene	98		98		63-130	0		20
Isopropylbenzene	110		100		70-130	10		20
p-Isopropyltoluene	110		100		70-130	10		20
Naphthalene	96		95		70-130	1		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	100		97		70-130	3		20
1,2,4-Trichlorobenzene	100		96		70-130	4		20
1,3,5-Trimethylbenzene	110		100		64-130	10		20
1,2,4-Trimethylbenzene	110		100		70-130	10		20
1,4-Dioxane	162		168	Q	56-162	4		20
p-Diethylbenzene	100		100		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Project Number: 170487001

Lab Number: L1930730

Report Date: 07/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05 Batch: WG1259943-3 WG1259943-4								
p-Ethyltoluene	110		100		70-130	10		20
1,2,4,5-Tetramethylbenzene	100		98		70-130	2		20
Ethyl ether	110		100		59-134	10		20
trans-1,4-Dichloro-2-butene	98		96		70-130	2		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	96		96		70-130
Toluene-d8	103		102		70-130
4-Bromofluorobenzene	100		101		70-130
Dibromofluoromethane	104		103		70-130

SEMIVOLATILES

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
 Client ID: RMW25_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 07/14/19 22:16
 Analyst: ALS

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 02:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
 Client ID: RMW25_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		21-120
Phenol-d6	50		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	68		15-120
2,4,6-Tribromophenol	49		10-120
4-Terphenyl-d14	72		41-149

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
 Client ID: RMW25_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 07/13/19 10:52
 Analyst: MA

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 07:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	169.		ng/l	150	33.9	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			42		15-110	

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
 Client ID: RMW25_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 07/15/19 12:05
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 02:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	0.05	J	ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
 Client ID: RMW25_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	40		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	63		15-120
2,4,6-Tribromophenol	69		10-120
4-Terphenyl-d14	62		41-149

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
Client ID: RMW25_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 07/26/19 00:00
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/24/19 07:27

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	4.80		ng/l	1.96	0.400	1
Perfluoropentanoic Acid (PFPeA)	11.9		ng/l	1.96	0.388	1
Perfluorobutanesulfonic Acid (PFBS)	0.969	J	ng/l	1.96	0.233	1
Perfluorohexanoic Acid (PFHxA)	10.2		ng/l	1.96	0.322	1
Perfluoroheptanoic Acid (PFHpA)	2.56		ng/l	1.96	0.221	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.96	0.369	1
Perfluorooctanoic Acid (PFOA)	5.51		ng/l	1.96	0.231	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.96	1.30	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.96	0.674	1
Perfluorononanoic Acid (PFNA)	0.824	J	ng/l	1.96	0.306	1
Perfluorooctanesulfonic Acid (PFOS)	3.71		ng/l	1.96	0.494	1
Perfluorodecanoic Acid (PFDA)	0.349	J	ng/l	1.96	0.298	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.96	1.19	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.96	0.635	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.96	0.255	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.96	0.961	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.96	0.569	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.96	0.788	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.96	0.365	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.96	0.321	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.96	0.243	1
PFOA/PFOS, Total	9.22		ng/l	1.96	0.231	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
 Client ID: RMW25_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	102		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	103		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	106		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	90		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	91		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	111		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	95		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	143		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	91		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	93		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	82		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	120		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	60		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	80		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	28		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	62		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	72		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	72		33-143

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
 Client ID: RMW23_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 07/14/19 22:42
 Analyst: ALS

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 02:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
Client ID: RMW23_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	77		21-120
Phenol-d6	69		10-120
Nitrobenzene-d5	97		23-120
2-Fluorobiphenyl	90		15-120
2,4,6-Tribromophenol	70		10-120
4-Terphenyl-d14	103		41-149

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
 Client ID: RMW23_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 07/13/19 11:18
 Analyst: MA

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 07:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	166.		ng/l	150	33.9	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			39		15-110	

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
 Client ID: RMW23_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 07/15/19 12:22
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 02:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.08	J	ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	0.06	J	ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
 Client ID: RMW23_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		21-120
Phenol-d6	58		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	84		15-120
2,4,6-Tribromophenol	119		10-120
4-Terphenyl-d14	91		41-149

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
Client ID: RMW23_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 07/26/19 00:17
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/24/19 07:27

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	10.6		ng/l	1.91	0.389	1
Perfluoropentanoic Acid (PFPeA)	7.74		ng/l	1.91	0.378	1
Perfluorobutanesulfonic Acid (PFBS)	1.12	J	ng/l	1.91	0.227	1
Perfluorohexanoic Acid (PFHxA)	6.12		ng/l	1.91	0.313	1
Perfluoroheptanoic Acid (PFHpA)	2.62		ng/l	1.91	0.215	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.91	0.359	1
Perfluorooctanoic Acid (PFOA)	6.44		ng/l	1.91	0.225	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.91	1.27	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.91	0.656	1
Perfluorononanoic Acid (PFNA)	1.68	J	ng/l	1.91	0.298	1
Perfluorooctanesulfonic Acid (PFOS)	9.03		ng/l	1.91	0.481	1
Perfluorodecanoic Acid (PFDA)	0.821	J	ng/l	1.91	0.290	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.91	1.16	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.91	0.618	1
Perfluoroundecanoic Acid (PFUnA)	0.828	J	ng/l	1.91	0.248	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.91	0.935	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.91	0.553	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.91	0.767	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.91	0.355	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.91	0.312	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.91	0.237	1
PFOA/PFOS, Total	15.5		ng/l	1.91	0.225	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
 Client ID: RMW23_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	128		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	130		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	121		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	113		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	119		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	126		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	121		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	170		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	120		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	118		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	108		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	149		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	86		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	104		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	38		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	80		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	90		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	94		33-143

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
 Client ID: GWFB_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 07/14/19 23:08
 Analyst: ALS

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 02:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
 Client ID: GWFB_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	88		21-120
Phenol-d6	77		10-120
Nitrobenzene-d5	114		23-120
2-Fluorobiphenyl	96		15-120
2,4,6-Tribromophenol	76		10-120
4-Terphenyl-d14	100		41-149

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
 Client ID: GWFB_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 07/13/19 11:44
 Analyst: MA

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 07:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	150	33.9	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			39		15-110	

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
 Client ID: GWFB_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 07/15/19 12:38
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 02:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
 Client ID: GWFB_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		21-120
Phenol-d6	62		10-120
Nitrobenzene-d5	93		23-120
2-Fluorobiphenyl	95		15-120
2,4,6-Tribromophenol	104		10-120
4-Terphenyl-d14	104		41-149

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
Client ID: GWFB_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 07/26/19 00:33
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/24/19 07:27

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	1.76	0.359	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	1.76	0.348	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	1.76	0.210	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	1.76	0.289	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	1.76	0.198	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.76	0.331	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	1.76	0.208	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.76	1.17	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.76	0.606	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	1.76	0.275	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	1.76	0.444	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	1.76	0.268	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.76	1.07	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	1.76	0.570	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	1.76	0.229	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.76	0.863	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.76	0.510	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.76	0.708	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	1.76	0.327	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	1.76	0.288	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	1.76	0.218	1
PFOA/PFOS, Total	ND		ng/l	1.76	0.208	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
 Client ID: GWFB_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	133		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	139		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	133		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	137		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	135		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	133		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	131		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	107		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	137		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	129		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	125		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	113		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	116		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	128		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	78		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	95		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	115		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	113		33-143

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
 Client ID: GWDUP_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 07/14/19 23:34
 Analyst: ALS

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 02:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
Client ID: GWDUP_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	76		21-120
Phenol-d6	68		10-120
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	90		15-120
2,4,6-Tribromophenol	75		10-120
4-Terphenyl-d14	101		41-149

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
 Client ID: GWDUP_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 07/13/19 12:10
 Analyst: MA

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 07:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	181.		ng/l	150	33.9	1
Surrogate			% Recovery	Qualifier	Acceptance Criteria	
1,4-Dioxane-d8			40		15-110	

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
 Client ID: GWDUP_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 07/15/19 12:55
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 02:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	0.10		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
 Client ID: GWDUP_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		21-120
Phenol-d6	57		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	84		15-120
2,4,6-Tribromophenol	100		10-120
4-Terphenyl-d14	97		41-149

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
 Client ID: GWDUP_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 122,537(M)
 Analytical Date: 07/26/19 00:50
 Analyst: JW

Extraction Method: EPA 537
 Extraction Date: 07/24/19 07:27

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	33.8		ng/l	1.84	0.376	1
Perfluoropentanoic Acid (PFPeA)	7.61		ng/l	1.84	0.365	1
Perfluorobutanesulfonic Acid (PFBS)	1.27	J	ng/l	1.84	0.220	1
Perfluorohexanoic Acid (PFHxA)	5.88		ng/l	1.84	0.302	1
Perfluoroheptanoic Acid (PFHpA)	2.59		ng/l	1.84	0.208	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	1.84	0.347	1
Perfluorooctanoic Acid (PFOA)	6.07		ng/l	1.84	0.218	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	1.84	1.23	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	1.84	0.635	1
Perfluorononanoic Acid (PFNA)	1.74	J	ng/l	1.84	0.288	1
Perfluorooctanesulfonic Acid (PFOS)	10.9		ng/l	1.84	0.465	1
Perfluorodecanoic Acid (PFDA)	1.50	J	ng/l	1.84	0.280	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	1.84	1.12	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	0.786	J	ng/l	1.84	0.598	1
Perfluoroundecanoic Acid (PFUnA)	1.56	J	ng/l	1.84	0.240	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	1.84	0.904	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	1.84	0.535	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	1.84	0.742	1
Perfluorododecanoic Acid (PFDoA)	1.02	J	ng/l	1.84	0.343	1
Perfluorotridecanoic Acid (PFTrDA)	0.878	J	ng/l	1.84	0.302	1
Perfluorotetradecanoic Acid (PFTA)	0.579	J	ng/l	1.84	0.229	1
PFOA/PFOS, Total	17.0		ng/l	1.84	0.218	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
 Client ID: GWDUP_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	137		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	139		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	150		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	132		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	139		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	155	Q	47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	144		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	201		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	142		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	145		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	127		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	194	Q	7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	105		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	130		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	52		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	94		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	110		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	106		33-143

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/12/19 10:19
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 07/12/19 03:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatle Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-05 Batch: WG1258944-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	2.8	J	ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/12/19 10:19
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 07/12/19 03:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-05 Batch: WG1258944-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 07/12/19 10:19
Analyst: JG

Extraction Method: EPA 3510C
Extraction Date: 07/12/19 03:50

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02,04-05 Batch: WG1258944-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	56		15-120
2,4,6-Tribromophenol	62		10-120
4-Terphenyl-d14	84		41-149

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 07/12/19 12:00
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 07/12/19 03:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02,04-05 Batch: WG1258945-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 07/12/19 12:00
Analyst: DV

Extraction Method: EPA 3510C
Extraction Date: 07/12/19 03:52

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02,04-05 Batch: WG1258945-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	54		15-120
2,4,6-Tribromophenol	80		10-120
4-Terphenyl-d14	82		41-149

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 07/13/19 09:37
Analyst: MA

Extraction Method: EPA 3510C
Extraction Date: 07/13/19 07:45

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01-02,04-05 Batch: WG1259465-1					
1,4-Dioxane	ND		ng/l	150	33.9

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	36		15-110

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 07/25/19 21:48
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/24/19 07:27

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02,04-05 Batch: WG1263687-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248
PFOA/PFOS, Total	ND		ng/l	2.00	0.236

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 07/25/19 21:48
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/24/19 07:27

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-02,04-05 Batch: WG1263687-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	102		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	109		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	106		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	107		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	103		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	99		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	100		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	78		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	101		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	91		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	83		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	85		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	76		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	83		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	37		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	70		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	77		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	80		33-143

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1258944-2 WG1258944-3								
Acenaphthene	77		76		37-111	1		30
1,2,4-Trichlorobenzene	73		76		39-98	4		30
Hexachlorobenzene	67		68		40-140	1		30
Bis(2-chloroethyl)ether	76		78		40-140	3		30
2-Chloronaphthalene	80		80		40-140	0		30
1,2-Dichlorobenzene	70		74		40-140	6		30
1,3-Dichlorobenzene	67		71		40-140	6		30
1,4-Dichlorobenzene	68		73		36-97	7		30
3,3'-Dichlorobenzidine	68		88		40-140	26		30
2,4-Dinitrotoluene	95		94		48-143	1		30
2,6-Dinitrotoluene	93		94		40-140	1		30
Fluoranthene	91		86		40-140	6		30
4-Chlorophenyl phenyl ether	77		76		40-140	1		30
4-Bromophenyl phenyl ether	73		75		40-140	3		30
Bis(2-chloroisopropyl)ether	65		67		40-140	3		30
Bis(2-chloroethoxy)methane	88		87		40-140	1		30
Hexachlorobutadiene	68		68		40-140	0		30
Hexachlorocyclopentadiene	75		71		40-140	5		30
Hexachloroethane	73		78		40-140	7		30
Isophorone	95		95		40-140	0		30
Naphthalene	75		77		40-140	3		30
Nitrobenzene	86		87		40-140	1		30
NDPA/DPA	71		84		40-140	17		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1258944-2 WG1258944-3								
n-Nitrosodi-n-propylamine	97		95		29-132	2		30
Bis(2-ethylhexyl)phthalate	102		94		40-140	8		30
Butyl benzyl phthalate	115		102		40-140	12		30
Di-n-butylphthalate	96		90		40-140	6		30
Di-n-octylphthalate	121		113		40-140	7		30
Diethyl phthalate	91		90		40-140	1		30
Dimethyl phthalate	99		96		40-140	3		30
Benzo(a)anthracene	92		91		40-140	1		30
Benzo(a)pyrene	85		83		40-140	2		30
Benzo(b)fluoranthene	94		83		40-140	12		30
Benzo(k)fluoranthene	90		96		40-140	6		30
Chrysene	77		77		40-140	0		30
Acenaphthylene	90		90		45-123	0		30
Anthracene	84		86		40-140	2		30
Benzo(ghi)perylene	88		88		40-140	0		30
Fluorene	83		82		40-140	1		30
Phenanthrene	82		78		40-140	5		30
Dibenzo(a,h)anthracene	84		84		40-140	0		30
Indeno(1,2,3-cd)pyrene	82		84		40-140	2		30
Pyrene	88		83		26-127	6		30
Biphenyl	74		72		40-140	3		30
4-Chloroaniline	63		61		40-140	3		30
2-Nitroaniline	97		94		52-143	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1258944-2 WG1258944-3								
3-Nitroaniline	78		76		25-145	3		30
4-Nitroaniline	94		87		51-143	8		30
Dibenzofuran	77		77		40-140	0		30
2-Methylnaphthalene	76		76		40-140	0		30
1,2,4,5-Tetrachlorobenzene	64		65		2-134	2		30
Acetophenone	74		75		39-129	1		30
2,4,6-Trichlorophenol	92		91		30-130	1		30
p-Chloro-m-cresol	100	Q	96		23-97	4		30
2-Chlorophenol	86		87		27-123	1		30
2,4-Dichlorophenol	95		94		30-130	1		30
2,4-Dimethylphenol	81		94		30-130	15		30
2-Nitrophenol	96		95		30-130	1		30
4-Nitrophenol	84	Q	80		10-80	5		30
2,4-Dinitrophenol	102		99		20-130	3		30
4,6-Dinitro-o-cresol	109		107		20-164	2		30
Pentachlorophenol	96		93		9-103	3		30
Phenol	66		72		12-110	9		30
2-Methylphenol	84		89		30-130	6		30
3-Methylphenol/4-Methylphenol	87		91		30-130	4		30
2,4,5-Trichlorophenol	93		88		30-130	6		30
Benzoic Acid	113		112		10-164	1		30
Benzyl Alcohol	91		92		26-116	1		30
Carbazole	93		89		55-144	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1258944-2 WG1258944-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	75		84		21-120
Phenol-d6	69		74		10-120
Nitrobenzene-d5	96		95		23-120
2-Fluorobiphenyl	82		78		15-120
2,4,6-Tribromophenol	76		77		10-120
4-Terphenyl-d14	87		79		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1258945-2 WG1258945-3								
Acenaphthene	74		78		40-140	5		40
2-Chloronaphthalene	74		74		40-140	0		40
Fluoranthene	76		75		40-140	1		40
Hexachlorobutadiene	66		68		40-140	3		40
Naphthalene	74		75		40-140	1		40
Benzo(a)anthracene	77		78		40-140	1		40
Benzo(a)pyrene	66		82		40-140	22		40
Benzo(b)fluoranthene	80		78		40-140	3		40
Benzo(k)fluoranthene	84		83		40-140	1		40
Chrysene	77		79		40-140	3		40
Acenaphthylene	75		77		40-140	3		40
Anthracene	78		82		40-140	5		40
Benzo(ghi)perylene	77		79		40-140	3		40
Fluorene	77		77		40-140	0		40
Phenanthrene	78		77		40-140	1		40
Dibenzo(a,h)anthracene	85		83		40-140	2		40
Indeno(1,2,3-cd)pyrene	80		82		40-140	2		40
Pyrene	72		74		40-140	3		40
2-Methylnaphthalene	74		75		40-140	1		40
Pentachlorophenol	93		87		40-140	7		40
Hexachlorobenzene	81		81		40-140	0		40
Hexachloroethane	73		75		40-140	3		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1258945-2 WG1258945-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	53		66		21-120
Phenol-d6	42		54		10-120
Nitrobenzene-d5	77		79		23-120
2-Fluorobiphenyl	69		70		15-120
2,4,6-Tribromophenol	75		85		10-120
4-Terphenyl-d14	76		75		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Project Number: 170487001

Lab Number: L1930730

Report Date: 07/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 01-02,04-05 Batch: WG1259465-2 WG1259465-3								
1,4-Dioxane	105		108		40-140	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	46		37		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02,04-05 Batch: WG1263687-2 WG1263687-3								
Perfluorobutanoic Acid (PFBA)	97		99		67-148	2		30
Perfluoropentanoic Acid (PFPeA)	104		106		63-161	2		30
Perfluorobutanesulfonic Acid (PFBS)	98		99		65-157	1		30
Perfluorohexanoic Acid (PFHxA)	108		110		69-168	2		30
Perfluoroheptanoic Acid (PFHpA)	98		98		58-159	0		30
Perfluorohexanesulfonic Acid (PFHxS)	104		107		69-177	3		30
Perfluorooctanoic Acid (PFOA)	101		102		63-159	1		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	102		108		49-187	6		30
Perfluoroheptanesulfonic Acid (PFHpS)	110		101		61-179	9		30
Perfluorononanoic Acid (PFNA)	106		105		68-171	1		30
Perfluorooctanesulfonic Acid (PFOS)	86		86		52-151	0		30
Perfluorodecanoic Acid (PFDA)	106		111		63-171	5		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	108		113		56-173	5		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	104		100		60-166	4		30
Perfluoroundecanoic Acid (PFUnA)	92		94		60-153	2		30
Perfluorodecanesulfonic Acid (PFDS)	101		101		38-156	0		30
Perfluorooctanesulfonamide (FOSA)	105		97		46-170	8		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	96		87		45-170	10		30
Perfluorododecanoic Acid (PFDoA)	96		100		67-153	4		30
Perfluorotridecanoic Acid (PFTrDA)	91		100		48-158	9		30
Perfluorotetradecanoic Acid (PFTA)	110		109		59-182	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	

Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-02,04-05 Batch: WG1263687-2 WG1263687-3

Surrogate (Extracted Internal Standard)	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Perfluoro[13C4]Butanoic Acid (MPFBA)	109		118		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	116		125		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	115		120		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	111		122		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	107		119		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	116		115		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	108		116		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	92		102		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	108		116		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	106		108		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	98		99		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	95		97		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	80		93		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	96		99		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	39		49		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	79		85		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	88		93		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	76		99		33-143

PCBS

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
Client ID: RMW25_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 07/14/19 23:36
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 07/13/19 02:04
Cleanup Method: EPA 3665A
Cleanup Date: 07/13/19
Cleanup Method: EPA 3660B
Cleanup Date: 07/13/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	62		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
Client ID: RMW23_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 07/14/19 23:49
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 07/13/19 02:04
Cleanup Method: EPA 3665A
Cleanup Date: 07/13/19
Cleanup Method: EPA 3660B
Cleanup Date: 07/13/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	56		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
Client ID: GWFB_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 07/14/19 23:22
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 07/13/19 02:04
Cleanup Method: EPA 3665A
Cleanup Date: 07/13/19
Cleanup Method: EPA 3660B
Cleanup Date: 07/13/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	91		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	86		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
Client ID: GWDUP_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 07/15/19 00:03
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 07/13/19 02:04
Cleanup Method: EPA 3665A
Cleanup Date: 07/13/19
Cleanup Method: EPA 3660B
Cleanup Date: 07/13/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	62		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8082A
Analytical Date: 07/13/19 11:34
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 07/12/19 09:42
Cleanup Method: EPA 3665A
Cleanup Date: 07/12/19
Cleanup Method: EPA 3660B
Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-02,04-05 Batch: WG1259122-1						
Aroclor 1016	ND		ug/l	0.083	0.034	A
Aroclor 1221	ND		ug/l	0.083	0.067	A
Aroclor 1232	ND		ug/l	0.083	0.046	A
Aroclor 1242	ND		ug/l	0.083	0.039	A
Aroclor 1248	ND		ug/l	0.083	0.049	A
Aroclor 1254	ND		ug/l	0.083	0.039	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.035	A
Aroclor 1268	ND		ug/l	0.083	0.034	A
PCBs, Total	ND		ug/l	0.083	0.032	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	89		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	88		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Project Number: 170487001

Lab Number: L1930730

Report Date: 07/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1259122-2 WG1259122-3									
Aroclor 1016	70		77		40-140	9		50	A
Aroclor 1260	68		81		40-140	17		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		82		30-150	A
Decachlorobiphenyl	82		103		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		78		30-150	B
Decachlorobiphenyl	79		96		30-150	B

PESTICIDES

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
 Client ID: RMW25_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 07/16/19 10:31
 Analyst: AMC

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 02:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
 Client ID: RMW25_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	77		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
 Client ID: RMW25_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 07/16/19 11:27
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 07/13/19 02:47

Methylation Date: 07/14/19 12:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	101		30-150	A
DCAA	92		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
 Client ID: RMW23_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 07/16/19 10:43
 Analyst: AMC

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 02:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
 Client ID: RMW23_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	48		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	63		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
 Client ID: RMW23_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 07/16/19 11:46
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 07/13/19 02:47

Methylation Date: 07/14/19 12:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	87		30-150	A
DCAA	73		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
 Client ID: GWFB_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 07/16/19 10:56
 Analyst: AMC

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 02:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: 404 EXTERIOR STREET**Lab Number:** L1930730**Project Number:** 170487001**Report Date:** 07/27/19**SAMPLE RESULTS**

Lab ID: L1930730-04

Date Collected: 07/12/19 13:00

Client ID: GWFB_071219

Date Received: 07/12/19

Sample Location: BRONX, NY

Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	79		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
 Client ID: GWFB_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 07/16/19 01:17
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 07/13/19 02:47

Methylation Date: 07/14/19 12:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	113		30-150	A
DCAA	100		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
 Client ID: GWDUP_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 07/16/19 11:09
 Analyst: AMC

Extraction Method: EPA 3510C
 Extraction Date: 07/13/19 02:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
 Client ID: GWDUP_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	47		30-150	A
2,4,5,6-Tetrachloro-m-xylene	76		30-150	B
Decachlorobiphenyl	61		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
 Client ID: GWDUP_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 07/16/19 12:05
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 07/13/19 02:47

Methylation Date: 07/14/19 12:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	103		30-150	A
DCAA	87		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 07/16/19 11:21
Analyst: AMC

Extraction Method: EPA 3510C
Extraction Date: 07/12/19 09:54

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-02,04-05 Batch: WG1259126-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	0.003	JP	ug/l	0.014	0.002	A
Endrin aldehyde	0.013	JP	ug/l	0.029	0.006	A
Endrin ketone	0.010	JP	ug/l	0.029	0.003	A
Dieldrin	0.004	J	ug/l	0.029	0.003	A
Endosulfan I	0.004	J	ug/l	0.014	0.002	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
Chlordane	ND		ug/l	0.143	0.033	A
Lindane	0.004	JP	ug/l	0.014	0.003	B
Alpha-BHC	ND		ug/l	0.014	0.003	B
Aldrin	0.002	J	ug/l	0.014	0.002	B
Heptachlor epoxide	ND		ug/l	0.014	0.003	B
Endrin	ND		ug/l	0.029	0.003	B
4,4'-DDE	ND		ug/l	0.029	0.003	B
4,4'-DDD	ND		ug/l	0.029	0.003	B
4,4'-DDT	0.003	JP	ug/l	0.029	0.003	B
Endosulfan II	0.004	J	ug/l	0.029	0.004	B
Methoxychlor	ND		ug/l	0.143	0.005	B
trans-Chlordane	0.006	J	ug/l	0.014	0.004	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 07/16/19 11:21
Analyst: AMC

Extraction Method: EPA 3510C
Extraction Date: 07/12/19 09:54

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-02,04-05 Batch: WG1259126-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	90		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 07/15/19 15:35
Analyst: SL

Extraction Method: EPA 8151A
Extraction Date: 07/12/19 10:39

Methylation Date: 07/12/19 18:58

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-02,04-05 Batch: WG1259159-1						
2,4-D	ND		ug/l	10.0	0.498	A
2,4,5-T	ND		ug/l	2.00	0.531	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	92		30-150	A
DCAA	80		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1259126-2 WG1259126-3									
Delta-BHC	89		82		30-150	8		20	A
Lindane	86		80		30-150	7		20	A
Alpha-BHC	87		80		30-150	8		20	A
Beta-BHC	88		80		30-150	9		20	A
Heptachlor	80		75		30-150	7		20	A
Aldrin	77		71		30-150	8		20	A
Heptachlor epoxide	85		80		30-150	7		20	A
Endrin	85		80		30-150	5		20	A
Endrin aldehyde	72		68		30-150	6		20	A
Endrin ketone	86		80		30-150	7		20	A
Dieldrin	86		80		30-150	8		20	A
4,4'-DDE	85		77		30-150	11		20	A
4,4'-DDD	85		79		30-150	8		20	A
4,4'-DDT	82		76		30-150	7		20	A
Endosulfan I	78		71		30-150	9		20	A
Endosulfan II	81		75		30-150	7		20	A
Endosulfan sulfate	77		73		30-150	5		20	A
Methoxychlor	72		68		30-150	6		20	A
cis-Chlordane	83		78		30-150	6		20	A
trans-Chlordane	81		75		30-150	8		20	A

Lab Control Sample Analysis Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1259126-2 WG1259126-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	81		74		30-150	A
Decachlorobiphenyl	71		66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		80		30-150	B
Decachlorobiphenyl	95		84		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1259159-2 WG1259159-3									
2,4-D	114		106		30-150	7		25	A
2,4,5-T	127		117		30-150	8		25	A
2,4,5-TP (Silvex)	121		111		30-150	9		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	94		86		30-150	A
DCAA	91		83		30-150	B



METALS

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
 Client ID: RMW25_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	1.85		mg/l	0.0100	0.00327	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Antimony, Total	0.00132	J	mg/l	0.00400	0.00042	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00663		mg/l	0.00050	0.00016	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Barium, Total	0.08246		mg/l	0.00050	0.00017	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00016	J	mg/l	0.00020	0.00005	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Calcium, Total	82.8		mg/l	0.100	0.0394	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Chromium, Total	0.00456		mg/l	0.00100	0.00017	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00395		mg/l	0.00050	0.00016	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Copper, Total	0.03070		mg/l	0.00100	0.00038	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Iron, Total	10.6		mg/l	0.0700	0.0191	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Lead, Total	0.1360		mg/l	0.00100	0.00034	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Magnesium, Total	13.2		mg/l	0.0700	0.0242	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Manganese, Total	1.444		mg/l	0.00100	0.00044	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	07/15/19 15:12	07/15/19 18:35	EPA 7470A	1,7470A	GD
Nickel, Total	0.00609		mg/l	0.00200	0.00055	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Potassium, Total	12.5		mg/l	0.100	0.0309	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Sodium, Total	70.7		mg/l	0.100	0.0293	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Vanadium, Total	0.00483	J	mg/l	0.00500	0.00157	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
Zinc, Total	0.1069		mg/l	0.01000	0.00341	1	07/13/19 10:30	07/16/19 10:13	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		07/16/19 10:13	NA	107,-	



Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
 Client ID: RMW25_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.0113		mg/l	0.0100	0.00327	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00121	J	mg/l	0.00400	0.00042	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00518		mg/l	0.00050	0.00016	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.05286		mg/l	0.00050	0.00017	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Calcium, Dissolved	83.6		mg/l	0.100	0.0394	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00023	J	mg/l	0.00100	0.00017	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00215		mg/l	0.00050	0.00016	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.00051	J	mg/l	0.00100	0.00038	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Iron, Dissolved	6.95		mg/l	0.0500	0.0191	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.00087	J	mg/l	0.00100	0.00034	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	12.7		mg/l	0.0700	0.0242	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Manganese, Dissolved	1.270		mg/l	0.00100	0.00044	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	07/15/19 15:55	07/16/19 13:29	EPA 7470A	1,7470A	GD
Nickel, Dissolved	0.00316		mg/l	0.00200	0.00055	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Potassium, Dissolved	12.7		mg/l	0.100	0.0309	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Sodium, Dissolved	73.0		mg/l	0.100	0.0293	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM
Zinc, Dissolved	0.02495		mg/l	0.01000	0.00341	1	07/15/19 11:15	07/16/19 01:52	EPA 3005A	1,6020B	AM



Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
 Client ID: RMW23_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.0499		mg/l	0.0100	0.00327	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Antimony, Total	0.00058	J	mg/l	0.00400	0.00042	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00172		mg/l	0.00050	0.00016	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Barium, Total	0.06463		mg/l	0.00050	0.00017	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00009	J	mg/l	0.00020	0.00005	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Calcium, Total	72.3		mg/l	0.100	0.0394	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Chromium, Total	0.00026	J	mg/l	0.00100	0.00017	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00136		mg/l	0.00050	0.00016	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Copper, Total	0.01157		mg/l	0.00100	0.00038	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Iron, Total	1.20		mg/l	0.0700	0.0191	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Lead, Total	0.00477		mg/l	0.00100	0.00034	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Magnesium, Total	17.6		mg/l	0.0700	0.0242	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Manganese, Total	1.403		mg/l	0.00100	0.00044	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	07/15/19 15:12	07/15/19 18:36	EPA 7470A	1,7470A	GD
Nickel, Total	0.00193	J	mg/l	0.00200	0.00055	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Potassium, Total	11.7		mg/l	0.100	0.0309	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Sodium, Total	75.1		mg/l	0.100	0.0293	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
Zinc, Total	0.01406		mg/l	0.01000	0.00341	1	07/13/19 10:30	07/16/19 10:17	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		07/16/19 10:17	NA	107,-	



Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
 Client ID: RMW23_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00414	J	mg/l	0.0100	0.00327	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00072	J	mg/l	0.00400	0.00042	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00136		mg/l	0.00050	0.00016	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.06076		mg/l	0.00050	0.00017	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Calcium, Dissolved	71.4		mg/l	0.100	0.0394	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00113		mg/l	0.00050	0.00016	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.00458		mg/l	0.00100	0.00038	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.728		mg/l	0.0500	0.0191	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.00120		mg/l	0.00100	0.00034	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	16.6		mg/l	0.0700	0.0242	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Manganese, Dissolved	1.324		mg/l	0.00100	0.00044	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	07/15/19 15:55	07/16/19 14:16	EPA 7470A	1,7470A	GD
Nickel, Dissolved	0.00172	J	mg/l	0.00200	0.00055	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Potassium, Dissolved	11.6		mg/l	0.100	0.0309	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Sodium, Dissolved	70.7		mg/l	0.100	0.0293	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM
Zinc, Dissolved	0.01399		mg/l	0.01000	0.00341	1	07/15/19 11:15	07/16/19 01:56	EPA 3005A	1,6020B	AM



Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
 Client ID: GWFB_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Antimony, Total	ND		mg/l	0.00400	0.00042	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Barium, Total	0.00028	J	mg/l	0.00050	0.00017	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Calcium, Total	ND		mg/l	0.100	0.0394	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Copper, Total	ND		mg/l	0.00100	0.00038	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Iron, Total	0.0297	J	mg/l	0.0700	0.0191	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Manganese, Total	ND		mg/l	0.00100	0.00044	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	07/15/19 15:12	07/15/19 18:38	EPA 7470A	1,7470A	GD
Nickel, Total	ND		mg/l	0.00200	0.00055	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Sodium, Total	ND		mg/l	0.100	0.0293	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
Zinc, Total	0.00673	J	mg/l	0.01000	0.00341	1	07/13/19 10:30	07/16/19 09:51	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		07/16/19 09:51	NA	107,-	



Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
 Client ID: GWFB_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Antimony, Dissolved	ND		mg/l	0.00400	0.00042	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.00041	J	mg/l	0.00050	0.00017	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Calcium, Dissolved	0.0908	J	mg/l	0.100	0.0394	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Chromium, Dissolved	0.00018	J	mg/l	0.00100	0.00017	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	ND		mg/l	0.00050	0.00016	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Copper, Dissolved	ND		mg/l	0.00100	0.00038	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Iron, Dissolved	ND		mg/l	0.0500	0.0191	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Lead, Dissolved	ND		mg/l	0.00100	0.00034	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	ND		mg/l	0.0700	0.0242	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Manganese, Dissolved	ND		mg/l	0.00100	0.00044	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	07/15/19 15:55	07/16/19 14:18	EPA 7470A	1,7470A	GD
Nickel, Dissolved	ND		mg/l	0.00200	0.00055	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Potassium, Dissolved	ND		mg/l	0.100	0.0309	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Sodium, Dissolved	0.0327	J	mg/l	0.100	0.0293	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM
Zinc, Dissolved	0.01215		mg/l	0.01000	0.00341	1	07/15/19 11:15	07/16/19 02:01	EPA 3005A	1,6020B	AM



Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
 Client ID: GWDUP_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	0.118		mg/l	0.0100	0.00327	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Antimony, Total	0.00052	J	mg/l	0.00400	0.00042	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Arsenic, Total	0.00159		mg/l	0.00050	0.00016	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Barium, Total	0.06147		mg/l	0.00050	0.00017	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Cadmium, Total	0.00008	J	mg/l	0.00020	0.00005	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Calcium, Total	66.7		mg/l	0.100	0.0394	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Chromium, Total	0.00049	J	mg/l	0.00100	0.00017	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Cobalt, Total	0.00136		mg/l	0.00050	0.00016	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Copper, Total	0.01137		mg/l	0.00100	0.00038	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Iron, Total	1.20		mg/l	0.0700	0.0191	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Lead, Total	0.00702		mg/l	0.00100	0.00034	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Magnesium, Total	16.5		mg/l	0.0700	0.0242	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Manganese, Total	1.348		mg/l	0.00100	0.00044	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Mercury, Total	ND		mg/l	0.00020	0.00009	1	07/15/19 15:12	07/15/19 18:43	EPA 7470A	1,7470A	GD
Nickel, Total	0.00196	J	mg/l	0.00200	0.00055	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Potassium, Total	11.0		mg/l	0.100	0.0309	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Sodium, Total	70.4		mg/l	0.100	0.0293	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Thallium, Total	ND		mg/l	0.00050	0.00014	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
Zinc, Total	0.01534		mg/l	0.01000	0.00341	1	07/13/19 10:30	07/16/19 10:21	EPA 3005A	1,6020B	AM
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		07/16/19 10:21	NA	107,-	



Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
 Client ID: GWDUP_071219
 Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
 Date Received: 07/12/19
 Field Prep: Refer to COC

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	0.00362	J	mg/l	0.0100	0.00327	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Antimony, Dissolved	0.00052	J	mg/l	0.00400	0.00042	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Arsenic, Dissolved	0.00138		mg/l	0.00050	0.00016	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Barium, Dissolved	0.05821		mg/l	0.00050	0.00017	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Beryllium, Dissolved	ND		mg/l	0.00050	0.00010	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Cadmium, Dissolved	ND		mg/l	0.00020	0.00005	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Calcium, Dissolved	65.9		mg/l	0.100	0.0394	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Chromium, Dissolved	ND		mg/l	0.00100	0.00017	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Cobalt, Dissolved	0.00113		mg/l	0.00050	0.00016	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Copper, Dissolved	0.00437		mg/l	0.00100	0.00038	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Iron, Dissolved	0.656		mg/l	0.0500	0.0191	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Lead, Dissolved	0.00129		mg/l	0.00100	0.00034	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Magnesium, Dissolved	15.8		mg/l	0.0700	0.0242	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Manganese, Dissolved	1.288		mg/l	0.00100	0.00044	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Mercury, Dissolved	ND		mg/l	0.00020	0.00009	1	07/15/19 15:55	07/16/19 14:20	EPA 7470A	1,7470A	GD
Nickel, Dissolved	0.00176	J	mg/l	0.00200	0.00055	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Potassium, Dissolved	10.7		mg/l	0.100	0.0309	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Selenium, Dissolved	ND		mg/l	0.00500	0.00173	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Silver, Dissolved	ND		mg/l	0.00040	0.00016	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Sodium, Dissolved	66.6		mg/l	0.100	0.0293	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Thallium, Dissolved	ND		mg/l	0.00050	0.00014	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Vanadium, Dissolved	ND		mg/l	0.00500	0.00157	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM
Zinc, Dissolved	0.01134		mg/l	0.01000	0.00341	1	07/15/19 11:15	07/16/19 02:05	EPA 3005A	1,6020B	AM



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02,04-05 Batch: WG1259915-1										
Aluminum, Total	ND		mg/l	0.0100	0.00327	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Antimony, Total	0.00075	J	mg/l	0.00400	0.00042	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Arsenic, Total	ND		mg/l	0.00050	0.00016	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Barium, Total	ND		mg/l	0.00050	0.00017	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Beryllium, Total	ND		mg/l	0.00050	0.00010	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Calcium, Total	ND		mg/l	0.100	0.0394	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Chromium, Total	ND		mg/l	0.00100	0.00017	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Cobalt, Total	ND		mg/l	0.00050	0.00016	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Copper, Total	ND		mg/l	0.00100	0.00038	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Iron, Total	0.0403	J	mg/l	0.0700	0.0191	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Lead, Total	ND		mg/l	0.00100	0.00034	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Magnesium, Total	ND		mg/l	0.0700	0.0242	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Manganese, Total	0.02228		mg/l	0.00100	0.00044	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Nickel, Total	ND		mg/l	0.00200	0.00055	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Potassium, Total	ND		mg/l	0.100	0.0309	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Selenium, Total	ND		mg/l	0.00500	0.00173	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Silver, Total	ND		mg/l	0.00040	0.00016	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Sodium, Total	ND		mg/l	0.100	0.0293	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Thallium, Total	0.00022	J	mg/l	0.00050	0.00014	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Vanadium, Total	ND		mg/l	0.00500	0.00157	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM
Zinc, Total	ND		mg/l	0.01000	0.00341	1	07/13/19 10:30	07/16/19 09:47	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-02,04-05 Batch: WG1259932-1										
Aluminum, Dissolved	ND		mg/l	0.0100	0.00327	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Antimony, Dissolved	0.00071	J	mg/l	0.00400	0.00042	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Arsenic, Dissolved	ND		mg/l	0.00050	0.00016	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis Batch Quality Control

Barium, Dissolved	ND	mg/l	0.00050	0.00017	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Beryllium, Dissolved	ND	mg/l	0.00050	0.00010	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Cadmium, Dissolved	ND	mg/l	0.00020	0.00005	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Calcium, Dissolved	ND	mg/l	0.100	0.0394	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Chromium, Dissolved	ND	mg/l	0.00100	0.00017	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Cobalt, Dissolved	ND	mg/l	0.00050	0.00016	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Copper, Dissolved	ND	mg/l	0.00100	0.00038	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Iron, Dissolved	ND	mg/l	0.0500	0.0191	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Lead, Dissolved	ND	mg/l	0.00100	0.00034	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Magnesium, Dissolved	ND	mg/l	0.0700	0.0242	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Manganese, Dissolved	ND	mg/l	0.00100	0.00044	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Nickel, Dissolved	ND	mg/l	0.00200	0.00055	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Potassium, Dissolved	ND	mg/l	0.100	0.0309	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Selenium, Dissolved	ND	mg/l	0.00500	0.00173	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Silver, Dissolved	ND	mg/l	0.00040	0.00016	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Sodium, Dissolved	ND	mg/l	0.100	0.0293	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Thallium, Dissolved	ND	mg/l	0.00050	0.00014	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Vanadium, Dissolved	ND	mg/l	0.00500	0.00157	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM
Zinc, Dissolved	ND	mg/l	0.01000	0.00341	1	07/15/19 11:15	07/16/19 01:30	1,6020B	AM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02,04-05 Batch: WG1260028-1									
Mercury, Total	ND	mg/l	0.00020	0.00009	1	07/15/19 15:12	07/15/19 18:03	1,7470A	GD

Prep Information

Digestion Method: EPA 7470A



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 01-02,04-05 Batch: WG1260047-1									
Mercury, Dissolved	ND	mg/l	0.00020	0.00009	1	07/15/19 15:55	07/16/19 13:19	1,7470A	GD

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 Batch: WG1259915-2								
Aluminum, Total	115		-		80-120	-		
Antimony, Total	98		-		80-120	-		
Arsenic, Total	107		-		80-120	-		
Barium, Total	105		-		80-120	-		
Beryllium, Total	116		-		80-120	-		
Cadmium, Total	112		-		80-120	-		
Calcium, Total	109		-		80-120	-		
Chromium, Total	110		-		80-120	-		
Cobalt, Total	109		-		80-120	-		
Copper, Total	101		-		80-120	-		
Iron, Total	118		-		80-120	-		
Lead, Total	113		-		80-120	-		
Magnesium, Total	113		-		80-120	-		
Manganese, Total	109		-		80-120	-		
Nickel, Total	106		-		80-120	-		
Potassium, Total	109		-		80-120	-		
Selenium, Total	113		-		80-120	-		
Silver, Total	106		-		80-120	-		
Sodium, Total	110		-		80-120	-		
Thallium, Total	108		-		80-120	-		
Vanadium, Total	111		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 Batch: WG1259915-2					
Zinc, Total	116	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02,04-05 Batch: WG1259932-2					
Aluminum, Dissolved	110	-	80-120	-	
Antimony, Dissolved	88	-	80-120	-	
Arsenic, Dissolved	103	-	80-120	-	
Barium, Dissolved	104	-	80-120	-	
Beryllium, Dissolved	102	-	80-120	-	
Cadmium, Dissolved	106	-	80-120	-	
Calcium, Dissolved	95	-	80-120	-	
Chromium, Dissolved	101	-	80-120	-	
Cobalt, Dissolved	97	-	80-120	-	
Copper, Dissolved	94	-	80-120	-	
Iron, Dissolved	98	-	80-120	-	
Lead, Dissolved	102	-	80-120	-	
Magnesium, Dissolved	108	-	80-120	-	
Manganese, Dissolved	103	-	80-120	-	
Nickel, Dissolved	97	-	80-120	-	
Potassium, Dissolved	108	-	80-120	-	
Selenium, Dissolved	113	-	80-120	-	
Silver, Dissolved	97	-	80-120	-	
Sodium, Dissolved	106	-	80-120	-	
Thallium, Dissolved	98	-	80-120	-	
Vanadium, Dissolved	99	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Project Number: 170487001

Lab Number: L1930730

Report Date: 07/27/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02,04-05 Batch: WG1259932-2					
Zinc, Dissolved	108	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 Batch: WG1260028-2					
Mercury, Total	93	-	80-120	-	
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02,04-05 Batch: WG1260047-2					
Mercury, Dissolved	92	-	80-120	-	

Matrix Spike Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1259915-3 QC Sample: L1930730-01 Client ID: RMW25_071219												
Aluminum, Total	1.85	2	5.03	159	Q	-	-		75-125	-		20
Antimony, Total	0.00132J	0.5	0.6399	128	Q	-	-		75-125	-		20
Arsenic, Total	0.00663	0.12	0.1355	107		-	-		75-125	-		20
Barium, Total	0.08246	2	2.211	106		-	-		75-125	-		20
Beryllium, Total	ND	0.05	0.05837	117		-	-		75-125	-		20
Cadmium, Total	0.00016J	0.051	0.05703	112		-	-		75-125	-		20
Calcium, Total	82.8	10	99.3	165	Q	-	-		75-125	-		20
Chromium, Total	0.00456	0.2	0.2260	111		-	-		75-125	-		20
Cobalt, Total	0.00395	0.5	0.5400	107		-	-		75-125	-		20
Copper, Total	0.03070	0.25	0.2852	102		-	-		75-125	-		20
Iron, Total	10.6	1	12.7	210	Q	-	-		75-125	-		20
Lead, Total	0.1360	0.51	0.7256	116		-	-		75-125	-		20
Magnesium, Total	13.2	10	25.8	126	Q	-	-		75-125	-		20
Manganese, Total	1.444	0.5	2.093	130	Q	-	-		75-125	-		20
Nickel, Total	0.00609	0.5	0.5255	104		-	-		75-125	-		20
Potassium, Total	12.5	10	24.6	121		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.136	113		-	-		75-125	-		20
Silver, Total	ND	0.05	0.05315	106		-	-		75-125	-		20
Sodium, Total	70.7	10	76.2	55	Q	-	-		75-125	-		20
Thallium, Total	ND	0.12	0.1328	111		-	-		75-125	-		20
Vanadium, Total	0.00483J	0.5	0.5758	115		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1259915-3 QC Sample: L1930730-01 Client ID: RMW25_071219									
Zinc, Total	0.1069	0.5	0.6862	116	-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1259932-3 QC Sample: L1930730-01 Client ID: RMW25_071219									
Aluminum, Dissolved	0.0113	2	2.30	114	-	-	75-125	-	20
Antimony, Dissolved	0.00121J	0.5	0.6258	125	-	-	75-125	-	20
Arsenic, Dissolved	0.00518	0.12	0.1293	103	-	-	75-125	-	20
Barium, Dissolved	0.05286	2	2.160	105	-	-	75-125	-	20
Beryllium, Dissolved	ND	0.05	0.04972	99	-	-	75-125	-	20
Cadmium, Dissolved	ND	0.051	0.05435	106	-	-	75-125	-	20
Calcium, Dissolved	83.6	10	93.9	103	-	-	75-125	-	20
Chromium, Dissolved	0.00023J	0.2	0.2021	101	-	-	75-125	-	20
Cobalt, Dissolved	0.00215	0.5	0.5068	101	-	-	75-125	-	20
Copper, Dissolved	0.00051J	0.25	0.2389	96	-	-	75-125	-	20
Iron, Dissolved	6.95	1	8.00	105	-	-	75-125	-	20
Lead, Dissolved	0.00087J	0.51	0.5526	108	-	-	75-125	-	20
Magnesium, Dissolved	12.7	10	24.5	118	-	-	75-125	-	20
Manganese, Dissolved	1.270	0.5	1.856	117	-	-	75-125	-	20
Nickel, Dissolved	0.00316	0.5	0.4942	98	-	-	75-125	-	20
Potassium, Dissolved	12.7	10	22.8	101	-	-	75-125	-	20
Selenium, Dissolved	ND	0.12	0.141	118	-	-	75-125	-	20
Silver, Dissolved	ND	0.05	0.05038	101	-	-	75-125	-	20
Sodium, Dissolved	73.0	10	74.1	11	Q	-	75-125	-	20
Thallium, Dissolved	ND	0.12	0.1269	106	-	-	75-125	-	20
Vanadium, Dissolved	ND	0.5	0.5200	104	-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1259932-3 QC Sample: L1930730-01 Client ID: RMW25_071219									
Zinc, Dissolved	0.02495	0.5	0.5819	111	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1260028-3 WG1260028-4 QC Sample: L1929167-02 Client ID: MS Sample									
Mercury, Total	ND	0.005	0.00437	87	0.00431	86	75-125	1	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1260047-3 QC Sample: L1929714-04 Client ID: MS Sample									
Mercury, Dissolved	ND	0.005	0.00436	87	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1259915-4 QC Sample: L1930730-01 Client ID: RMW25_071219						
Aluminum, Total	1.85	1.82	mg/l	2		20
Antimony, Total	0.00132J	0.00299J	mg/l	NC		20
Arsenic, Total	0.00663	0.00638	mg/l	4		20
Barium, Total	0.08246	0.08286	mg/l	0		20
Beryllium, Total	ND	0.00015J	mg/l	NC		20
Cadmium, Total	0.00016J	0.00016J	mg/l	NC		20
Calcium, Total	82.8	82.3	mg/l	1		20
Chromium, Total	0.00456	0.00449	mg/l	2		20
Cobalt, Total	0.00395	0.00381	mg/l	4		20
Copper, Total	0.03070	0.03011	mg/l	2		20
Iron, Total	10.6	10.5	mg/l	1		20
Lead, Total	0.1360	0.1345	mg/l	1		20
Magnesium, Total	13.2	13.0	mg/l	2		20
Manganese, Total	1.444	1.434	mg/l	1		20
Nickel, Total	0.00609	0.00599	mg/l	2		20
Potassium, Total	12.5	12.5	mg/l	0		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Sodium, Total	70.7	70.6	mg/l	0		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1259915-4 QC Sample: L1930730-01 Client ID: RMW25_071219					
Thallium, Total	ND	0.00020J	mg/l	NC	20
Vanadium, Total	0.00483J	0.00445J	mg/l	NC	20
Zinc, Total	0.1069	0.1042	mg/l	3	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1259932-4 QC Sample: L1930730-01 Client ID: RMW25_071219					
Aluminum, Dissolved	0.0113	0.0117	mg/l	3	20
Antimony, Dissolved	0.00121J	0.00332J	mg/l	NC	20
Arsenic, Dissolved	0.00518	0.00532	mg/l	3	20
Barium, Dissolved	0.05286	0.05426	mg/l	3	20
Beryllium, Dissolved	ND	ND	mg/l	NC	20
Cadmium, Dissolved	ND	ND	mg/l	NC	20
Calcium, Dissolved	83.6	86.2	mg/l	3	20
Chromium, Dissolved	0.00023J	0.00022J	mg/l	NC	20
Cobalt, Dissolved	0.00215	0.00209	mg/l	3	20
Copper, Dissolved	0.00051J	0.00055J	mg/l	NC	20
Iron, Dissolved	6.95	6.89	mg/l	1	20
Lead, Dissolved	0.00087J	0.00095J	mg/l	NC	20
Magnesium, Dissolved	12.7	12.9	mg/l	2	20
Manganese, Dissolved	1.270	1.292	mg/l	2	20
Nickel, Dissolved	0.00316	0.00321	mg/l	2	20
Potassium, Dissolved	12.7	13.1	mg/l	3	20
Selenium, Dissolved	ND	ND	mg/l	NC	20
Silver, Dissolved	ND	ND	mg/l	NC	20
Sodium, Dissolved	73.0	73.0	mg/l	0	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1259932-4 QC Sample: L1930730-01 Client ID: RMW25_071219					
Thallium, Dissolved	ND	0.00022J	mg/l	NC	20
Vanadium, Dissolved	ND	ND	mg/l	NC	20
Zinc, Dissolved	0.02495	0.02468	mg/l	1	20
Dissolved Metals - Mansfield Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1260047-4 QC Sample: L1929714-04 Client ID: DUP Sample					
Mercury, Dissolved	ND	ND	mg/l	NC	20

INORGANICS & MISCELLANEOUS

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-01
Client ID: RMW25_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 10:35
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	07/14/19 14:10	07/15/19 13:17	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	07/13/19 02:45	07/13/19 02:56	1,7196A	MA



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-02
Client ID: RMW23_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 13:10
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	07/14/19 14:10	07/15/19 13:18	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	07/13/19 02:45	07/13/19 02:56	1,7196A	MA



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-04
Client ID: GWFB_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 13:00
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	07/14/19 14:10	07/15/19 13:19	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	07/13/19 02:45	07/13/19 02:57	1,7196A	MA



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

SAMPLE RESULTS

Lab ID: L1930730-05
Client ID: GWDUP_071219
Sample Location: BRONX, NY

Date Collected: 07/12/19 00:00
Date Received: 07/12/19
Field Prep: Refer to COC

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	07/14/19 14:10	07/15/19 13:20	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	07/13/19 02:45	07/13/19 02:57	1,7196A	MA



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02,04-05 Batch: WG1259435-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	07/13/19 02:45	07/13/19 02:55	1,7196A	MA
General Chemistry - Westborough Lab for sample(s): 01-02,04-05 Batch: WG1259715-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	07/14/19 14:10	07/15/19 12:40	1,9010C/9012B	LH

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Project Number: 170487001

Lab Number: L1930730

Report Date: 07/27/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1259435-2								
Chromium, Hexavalent	101		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-05 Batch: WG1259715-2 WG1259715-3								
Cyanide, Total	95		96		85-115	1		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1259435-4 QC Sample: L1930730-05 Client ID: GWDUP_071219												
Chromium, Hexavalent	ND	0.1	0.098	98		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1259715-4 WG1259715-5 QC Sample: L1930690-03 Client ID: MS Sample												
Cyanide, Total	0.013	0.2	0.122	54	Q	0.172	79	Q	80-120	34	Q	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930730
Report Date: 07/27/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-05 QC Batch ID: WG1259435-3 QC Sample: L1930730-05 Client ID: GWDUP_071219						
Chromium, Hexavalent	ND	ND	mg/l	NC		20

Project Name: 404 EXTERIOR STREET**Lab Number:** L1930730**Project Number:** 170487001**Report Date:** 07/27/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1930730-01A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1930730-01B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1930730-01C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1930730-01D	Plastic 250ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-537-ISOTOPE(14)
L1930730-01E	Plastic 250ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-537-ISOTOPE(14)
L1930730-01F	Plastic 250ml NaOH preserved	A	>12	>12	2.3	Y	Absent		TCN-9010(14)
L1930730-01G	Plastic 250ml HNO3 preserved	A	<2	<2	2.3	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1930730-01H	Plastic 250ml HNO3 preserved	A	<2	<2	2.3	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1930730-01I	Plastic 500ml unpreserved	A	7	7	2.3	Y	Absent		HEXCR-7196(1)
L1930730-01J	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8082-LVI(7)
L1930730-01K	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8082-LVI(7)
L1930730-01L	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8081(7)
L1930730-01M	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8081(7)
L1930730-01N	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1930730-01O	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1930730-01P	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1930730-01Q	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1930730-01R	Amber 1000ml unpreserved	A	7	7	2.3	Y	Absent		HERB-APA(7)
L1930730-01S	Amber 1000ml unpreserved	A	7	7	2.3	Y	Absent		HERB-APA(7)
L1930730-02A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1930730-02B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1930730-02C	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1930730-02D	Plastic 250ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-537-ISOTOPE(14)
L1930730-02E	Plastic 250ml unpreserved	A	NA		2.3	Y	Absent		A2-NY-537-ISOTOPE(14)
L1930730-02F	Plastic 250ml NaOH preserved	A	>12	>12	2.3	Y	Absent		TCN-9010(14)
L1930730-02G	Plastic 250ml HNO3 preserved	A	<2	<2	2.3	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1930730-02H	Plastic 250ml HNO3 preserved	A	<2	<2	2.3	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1930730-02I	Plastic 500ml unpreserved	A	7	7	2.3	Y	Absent		HEXCR-7196(1)
L1930730-02J	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8082-LVI(7)
L1930730-02K	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8082-LVI(7)
L1930730-02L	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8081(7)
L1930730-02M	Amber 120ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8081(7)
L1930730-02N	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1930730-02O	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		A2-1,4-DIOXANE-SIM(7)

Project Name: 404 EXTERIOR STREET

Lab Number: L1930730

Project Number: 170487001

Report Date: 07/27/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1930730-02P	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1930730-02Q	Amber 250ml unpreserved	A	7	7	2.3	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1930730-02R	Amber 1000ml unpreserved	A	7	7	2.3	Y	Absent		HERB-APA(7)
L1930730-02S	Amber 1000ml unpreserved	A	7	7	2.3	Y	Absent		HERB-APA(7)
L1930730-03A	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1930730-03B	Vial HCl preserved	A	NA		2.3	Y	Absent		NYTCL-8260(14)
L1930730-04A	Vial HCl preserved	B	NA		2.0	Y	Absent		NYTCL-8260(14)
L1930730-04B	Vial HCl preserved	B	NA		2.0	Y	Absent		NYTCL-8260(14)
L1930730-04C	Vial HCl preserved	B	NA		2.0	Y	Absent		NYTCL-8260(14)
L1930730-04D	Plastic 250ml unpreserved	B	NA		2.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L1930730-04F	Plastic 250ml NaOH preserved	B	>12	>12	2.0	Y	Absent		TCN-9010(14)
L1930730-04G	Plastic 250ml HNO3 preserved	B	<2	<2	2.0	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1930730-04H	Plastic 250ml HNO3 preserved	B	<2	<2	2.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1930730-04I	Plastic 500ml unpreserved	B	7	7	2.0	Y	Absent		HEXCR-7196(1)
L1930730-04J	Amber 120ml unpreserved	B	7	7	2.0	Y	Absent		NYTCL-8082-LVI(7)
L1930730-04K	Amber 120ml unpreserved	B	7	7	2.0	Y	Absent		NYTCL-8082-LVI(7)
L1930730-04L	Amber 120ml unpreserved	B	7	7	2.0	Y	Absent		NYTCL-8081(7)
L1930730-04M	Amber 120ml unpreserved	B	7	7	2.0	Y	Absent		NYTCL-8081(7)
L1930730-04N	Amber 250ml unpreserved	B	7	7	2.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1930730-04O	Amber 250ml unpreserved	B	7	7	2.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Serial_No:07271908:41
Lab Number: L1930730
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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1930730-04P	Amber 250ml unpreserved	B	7	7	2.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1930730-04Q	Amber 250ml unpreserved	B	7	7	2.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1930730-04R	Amber 1000ml unpreserved	B	7	7	2.0	Y	Absent		HERB-APA(7)
L1930730-04S	Amber 1000ml unpreserved	B	7	7	2.0	Y	Absent		HERB-APA(7)
L1930730-05A	Vial HCl preserved	B	NA		2.0	Y	Absent		NYTCL-8260(14)
L1930730-05B	Vial HCl preserved	B	NA		2.0	Y	Absent		NYTCL-8260(14)
L1930730-05C	Vial HCl preserved	B	NA		2.0	Y	Absent		NYTCL-8260(14)
L1930730-05D	Plastic 250ml unpreserved	B	NA		2.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L1930730-05E	Plastic 250ml unpreserved	B	NA		2.0	Y	Absent		A2-NY-537-ISOTOPE(14)
L1930730-05F	Plastic 250ml NaOH preserved	B	>12	>12	2.0	Y	Absent		TCN-9010(14)
L1930730-05G	Plastic 250ml HNO3 preserved	B	<2	<2	2.0	Y	Absent		CU-6020S(180),K-6020S(180),SE-6020S(180),V-6020S(180),MN-6020S(180),BE-6020S(180),CO-6020S(180),MG-6020S(180),ZN-6020S(180),CA-6020S(180),CR-6020S(180),FE-6020S(180),BA-6020S(180),NA-6020S(180),NI-6020S(180),PB-6020S(180),TL-6020S(180),AG-6020S(180),AS-6020S(180),SB-6020S(180),AL-6020S(180),CD-6020S(180),HG-S(28)
L1930730-05H	Plastic 250ml HNO3 preserved	B	<2	<2	2.0	Y	Absent		BA-6020T(180),FE-6020T(180),SE-6020T(180),TL-6020T(180),CA-6020T(180),CR-6020T(180),K-6020T(180),NI-6020T(180),CU-6020T(180),NA-6020T(180),ZN-6020T(180),PB-6020T(180),BE-6020T(180),MN-6020T(180),AS-6020T(180),SB-6020T(180),V-6020T(180),AG-6020T(180),AL-6020T(180),CD-6020T(180),HG-T(28),MG-6020T(180),CO-6020T(180)
L1930730-05I	Plastic 500ml unpreserved	B	7	7	2.0	Y	Absent		HEXCR-7196(1)
L1930730-05J	Amber 120ml unpreserved	B	7	7	2.0	Y	Absent		NYTCL-8082-LVI(7)
L1930730-05K	Amber 120ml unpreserved	B	7	7	2.0	Y	Absent		NYTCL-8082-LVI(7)
L1930730-05L	Amber 120ml unpreserved	B	7	7	2.0	Y	Absent		NYTCL-8081(7)
L1930730-05M	Amber 120ml unpreserved	B	7	7	2.0	Y	Absent		NYTCL-8081(7)
L1930730-05N	Amber 250ml unpreserved	B	7	7	2.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1930730-05O	Amber 250ml unpreserved	B	7	7	2.0	Y	Absent		A2-1,4-DIOXANE-SIM(7)
L1930730-05P	Amber 250ml unpreserved	B	7	7	2.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)

Project Name: 404 EXTERIOR STREET

Project Number: 170487001

Serial_No:07271908:41

Lab Number: L1930730

Report Date: 07/27/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1930730-05Q	Amber 250ml unpreserved	B	7	7	2.0	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1930730-05R	Amber 1000ml unpreserved	B	7	7	2.0	Y	Absent		HERB-APA(7)
L1930730-05S	Amber 1000ml unpreserved	B	7	7	2.0	Y	Absent		HERB-APA(7)

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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



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- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

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Report Date: 07/27/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.
- 122 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537, EPA/600/R-08/092. Version 1.1, September 2009.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at its own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page		Date Rec'd in Lab 7/12/19	ALPHA Job # L1930730										
		of													
Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Project Information		Deliverables											
Client Information Client: LANGAN ENG Address: 360 W 31st ST NEW YORK, NY Phone: 212 479 5400 Fax: jleung@langan.com		Project Name: 404 EXTERIOR STREET Project Location: BRONX, NY Project # 170487001		<input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other											
		(Use Project name as Project #) <input type="checkbox"/> Project Manager: JULIA LEUNG ALPHAQuote #:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge											
Turn-Around Time Standard <input type="checkbox"/> Due Date: Rush (only if pre approved) <input checked="" type="checkbox"/> # of Days:		These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: <div style="text-align: center; font-size: 2em; margin-top: 10px;">4P-hv TAT</div>		ANALYSIS		Disposal Site Information									
				Please specify Metals or TAL.		Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:									
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PFAS	1,4 Dioxane	VOCs	SVOCs	PCBS	Pesticides/Herbicides	TAL Metals (Total Lead)	Hex/Tric Chloro Toluene	Sample Filtration	Total Bottles
														<input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)	
														Sample Specific Comments	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other	Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle	Westboro: Certification No: MA935 Mansfield: Certification No: MA015	Container Type Preservative		P P V A A A A A A A O A A A C A	Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)									
Relinquished By:		Date/Time		Received By:		Date/Time									
[Signature]		7/12/19 1440		[Signature]		7/12/19 1440									
[Signature]		7/12/19 1640		[Signature]		7/12/19 1640									
[Signature]		7/12/19 2130		[Signature]		7/12/19 2130									



ANALYTICAL REPORT

Lab Number:	L1852610
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	GERARD AVE + E. 146TH ST.
Project Number:	170487001
Report Date:	01/03/19

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1852610-01	RB07_0-2	SOIL	BRONX, NY	12/20/18 12:10	12/20/18
L1852610-02	RB07_8-10	SOIL	BRONX, NY	12/20/18 13:30	12/20/18
L1852610-03	RB07_10-12	SOIL	BRONX, NY	12/20/18 13:45	12/20/18

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The analyses performed were specified by the client.

Total Metals

L1852610-01, -02 and -03: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1192853-3 MS recovery, performed on L1852610-01, is outside the acceptance criteria for barium (18%). A post digestion spike was performed and was within acceptance criteria.

The WG1192853-3 MS recoveries for calcium (1380%), iron (686%), magnesium (127%) and manganese (190%), performed on L1852610-01, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1192853-3 MS recovery, performed on L1852610-01, is outside the acceptance criteria for lead (11%). A post digestion spike was performed and yielded an unacceptable recovery for lead (75%). The serial dilution recovery was acceptable; therefore, the matrix test passed for the sample matrix.


The WG1192853-4 Laboratory Duplicate RPD for zinc (28%), performed on L1852610-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

Cyanide, Total

The WG1192409-2/-3 LCS/LCSD recoveries (71%/77%), associated with L1852610-01 through -03, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Michelle M. Morris

Title: Technical Director/Representative

Date: 01/03/19

ORGANICS

VOLATILES

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-01
 Client ID: RB07_0-2
 Sample Location: BRONX, NY

Date Collected: 12/20/18 12:10
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 12/28/18 10:58
 Analyst: MKS
 Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	7.0	3.2	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.20	1
Chloroform	ND		ug/kg	2.1	0.20	1
Carbon tetrachloride	ND		ug/kg	1.4	0.32	1
1,2-Dichloropropane	ND		ug/kg	1.4	0.17	1
Dibromochloromethane	ND		ug/kg	1.4	0.20	1
1,1,2-Trichloroethane	ND		ug/kg	1.4	0.37	1
Tetrachloroethene	ND		ug/kg	0.70	0.27	1
Chlorobenzene	ND		ug/kg	0.70	0.18	1
Trichlorofluoromethane	ND		ug/kg	5.6	0.97	1
1,2-Dichloroethane	ND		ug/kg	1.4	0.36	1
1,1,1-Trichloroethane	ND		ug/kg	0.70	0.23	1
Bromodichloromethane	ND		ug/kg	0.70	0.15	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	0.38	1
cis-1,3-Dichloropropene	ND		ug/kg	0.70	0.22	1
1,3-Dichloropropene, Total	ND		ug/kg	0.70	0.22	1
1,1-Dichloropropene	ND		ug/kg	0.70	0.22	1
Bromoform	ND		ug/kg	5.6	0.34	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.70	0.23	1
Benzene	ND		ug/kg	0.70	0.23	1
Toluene	ND		ug/kg	1.4	0.76	1
Ethylbenzene	ND		ug/kg	1.4	0.20	1
Chloromethane	ND		ug/kg	5.6	1.3	1
Bromomethane	ND		ug/kg	2.8	0.81	1
Vinyl chloride	ND		ug/kg	1.4	0.47	1
Chloroethane	ND		ug/kg	2.8	0.63	1
1,1-Dichloroethene	ND		ug/kg	1.4	0.33	1
trans-1,2-Dichloroethene	ND		ug/kg	2.1	0.19	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852610**Project Number:** 170487001**Report Date:** 01/03/19**SAMPLE RESULTS**

Lab ID: L1852610-01

Date Collected: 12/20/18 12:10

Client ID: RB07_0-2

Date Received: 12/20/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.70	0.19	1
1,2-Dichlorobenzene	ND		ug/kg	2.8	0.20	1
1,3-Dichlorobenzene	ND		ug/kg	2.8	0.21	1
1,4-Dichlorobenzene	ND		ug/kg	2.8	0.24	1
Methyl tert butyl ether	ND		ug/kg	2.8	0.28	1
p/m-Xylene	ND		ug/kg	2.8	0.78	1
o-Xylene	ND		ug/kg	1.4	0.41	1
Xylenes, Total	ND		ug/kg	1.4	0.41	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.24	1
1,2-Dichloroethene, Total	ND		ug/kg	1.4	0.19	1
Dibromomethane	ND		ug/kg	2.8	0.33	1
Styrene	ND		ug/kg	1.4	0.27	1
Dichlorodifluoromethane	ND		ug/kg	14	1.3	1
Acetone	ND		ug/kg	14	6.7	1
Carbon disulfide	ND		ug/kg	14	6.4	1
2-Butanone	ND		ug/kg	14	3.1	1
Vinyl acetate	ND		ug/kg	14	3.0	1
4-Methyl-2-pentanone	ND		ug/kg	14	1.8	1
1,2,3-Trichloropropane	ND		ug/kg	2.8	0.18	1
2-Hexanone	ND		ug/kg	14	1.6	1
Bromochloromethane	ND		ug/kg	2.8	0.29	1
2,2-Dichloropropane	ND		ug/kg	2.8	0.28	1
1,2-Dibromoethane	ND		ug/kg	1.4	0.39	1
1,3-Dichloropropane	ND		ug/kg	2.8	0.23	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.70	0.18	1
Bromobenzene	ND		ug/kg	2.8	0.20	1
n-Butylbenzene	ND		ug/kg	1.4	0.23	1
sec-Butylbenzene	ND		ug/kg	1.4	0.20	1
tert-Butylbenzene	ND		ug/kg	2.8	0.16	1
o-Chlorotoluene	ND		ug/kg	2.8	0.27	1
p-Chlorotoluene	ND		ug/kg	2.8	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.2	1.4	1
Hexachlorobutadiene	ND		ug/kg	5.6	0.24	1
Isopropylbenzene	ND		ug/kg	1.4	0.15	1
p-Isopropyltoluene	ND		ug/kg	1.4	0.15	1
Naphthalene	ND		ug/kg	5.6	0.91	1
Acrylonitrile	ND		ug/kg	5.6	1.6	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-01
 Client ID: RB07_0-2
 Sample Location: BRONX, NY

Date Collected: 12/20/18 12:10
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.4	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.8	0.45	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.8	0.38	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.8	0.27	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.8	0.47	1
1,4-Dioxane	ND		ug/kg	140	49.	1
p-Diethylbenzene	ND		ug/kg	2.8	0.25	1
p-Ethyltoluene	ND		ug/kg	2.8	0.54	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.8	0.27	1
Ethyl ether	ND		ug/kg	2.8	0.48	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.0	2.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	96		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-02
 Client ID: RB07_8-10
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:30
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 12/28/18 11:24
 Analyst: MKS
 Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.5	2.1	1
1,1-Dichloroethane	ND		ug/kg	0.90	0.13	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.90	0.21	1
1,2-Dichloropropane	ND		ug/kg	0.90	0.11	1
Dibromochloromethane	ND		ug/kg	0.90	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.90	0.24	1
Tetrachloroethene	ND		ug/kg	0.45	0.18	1
Chlorobenzene	ND		ug/kg	0.45	0.11	1
Trichlorofluoromethane	ND		ug/kg	3.6	0.62	1
1,2-Dichloroethane	ND		ug/kg	0.90	0.23	1
1,1,1-Trichloroethane	ND		ug/kg	0.45	0.15	1
Bromodichloromethane	ND		ug/kg	0.45	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.90	0.24	1
cis-1,3-Dichloropropene	ND		ug/kg	0.45	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.45	0.14	1
1,1-Dichloropropene	ND		ug/kg	0.45	0.14	1
Bromoform	ND		ug/kg	3.6	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.45	0.15	1
Benzene	0.87		ug/kg	0.45	0.15	1
Toluene	0.59	J	ug/kg	0.90	0.49	1
Ethylbenzene	ND		ug/kg	0.90	0.13	1
Chloromethane	ND		ug/kg	3.6	0.84	1
Bromomethane	ND		ug/kg	1.8	0.52	1
Vinyl chloride	ND		ug/kg	0.90	0.30	1
Chloroethane	ND		ug/kg	1.8	0.41	1
1,1-Dichloroethene	ND		ug/kg	0.90	0.21	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.12	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852610**Project Number:** 170487001**Report Date:** 01/03/19**SAMPLE RESULTS**

Lab ID: L1852610-02

Date Collected: 12/20/18 13:30

Client ID: RB07_8-10

Date Received: 12/20/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.45	0.12	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	0.15	1
Methyl tert butyl ether	ND		ug/kg	1.8	0.18	1
p/m-Xylene	ND		ug/kg	1.8	0.50	1
o-Xylene	ND		ug/kg	0.90	0.26	1
Xylenes, Total	ND		ug/kg	0.90	0.26	1
cis-1,2-Dichloroethene	ND		ug/kg	0.90	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	0.90	0.12	1
Dibromomethane	ND		ug/kg	1.8	0.21	1
Styrene	ND		ug/kg	0.90	0.18	1
Dichlorodifluoromethane	ND		ug/kg	9.0	0.82	1
Acetone	ND		ug/kg	9.0	4.3	1
Carbon disulfide	ND		ug/kg	9.0	4.1	1
2-Butanone	ND		ug/kg	9.0	2.0	1
Vinyl acetate	ND		ug/kg	9.0	1.9	1
4-Methyl-2-pentanone	ND		ug/kg	9.0	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	1.8	0.11	1
2-Hexanone	ND		ug/kg	9.0	1.1	1
Bromochloromethane	ND		ug/kg	1.8	0.18	1
2,2-Dichloropropane	ND		ug/kg	1.8	0.18	1
1,2-Dibromoethane	ND		ug/kg	0.90	0.25	1
1,3-Dichloropropane	ND		ug/kg	1.8	0.15	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.45	0.12	1
Bromobenzene	ND		ug/kg	1.8	0.13	1
n-Butylbenzene	ND		ug/kg	0.90	0.15	1
sec-Butylbenzene	ND		ug/kg	0.90	0.13	1
tert-Butylbenzene	ND		ug/kg	1.8	0.11	1
o-Chlorotoluene	ND		ug/kg	1.8	0.17	1
p-Chlorotoluene	ND		ug/kg	1.8	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.7	0.90	1
Hexachlorobutadiene	ND		ug/kg	3.6	0.15	1
Isopropylbenzene	ND		ug/kg	0.90	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.90	0.10	1
Naphthalene	ND		ug/kg	3.6	0.58	1
Acrylonitrile	ND		ug/kg	3.6	1.0	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-02
Client ID: RB07_8-10
Sample Location: BRONX, NY

Date Collected: 12/20/18 13:30
Date Received: 12/20/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.90	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	0.29	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	0.24	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	0.30	1
1,4-Dioxane	ND		ug/kg	90	32.	1
p-Diethylbenzene	ND		ug/kg	1.8	0.16	1
p-Ethyltoluene	ND		ug/kg	1.8	0.34	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.8	0.17	1
Ethyl ether	ND		ug/kg	1.8	0.31	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.5	1.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	93		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-03
 Client ID: RB07_10-12
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:45
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 12/28/18 11:50
 Analyst: MKS
 Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.12	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.26	1
Tetrachloroethene	ND		ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.69	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Bromodichloromethane	ND		ug/kg	0.50	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.50	0.16	1
Bromoform	ND		ug/kg	4.0	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.16	1
Benzene	0.40	J	ug/kg	0.50	0.16	1
Toluene	ND		ug/kg	1.0	0.54	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.93	1
Bromomethane	ND		ug/kg	2.0	0.58	1
Vinyl chloride	ND		ug/kg	1.0	0.33	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-03
Client ID: RB07_10-12
Sample Location: BRONX, NY

Date Collected: 12/20/18 13:45
Date Received: 12/20/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
Xylenes, Total	ND		ug/kg	1.0	0.29	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.0	0.24	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.91	1
Acetone	19		ug/kg	10	4.8	1
Carbon disulfide	ND		ug/kg	10	4.5	1
2-Butanone	ND		ug/kg	10	2.2	1
Vinyl acetate	ND		ug/kg	10	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
1,3-Dichloropropane	ND		ug/kg	2.0	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.14	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	0.99	1
Hexachlorobutadiene	ND		ug/kg	4.0	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.0	0.65	1
Acrylonitrile	ND		ug/kg	4.0	1.1	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-03
 Client ID: RB07_10-12
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:45
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.0	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
1,4-Dioxane	ND		ug/kg	100	35.	1
p-Diethylbenzene	ND		ug/kg	2.0	0.18	1
p-Ethyltoluene	ND		ug/kg	2.0	0.38	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19	1
Ethyl ether	ND		ug/kg	2.0	0.34	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	95		70-130

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 12/28/18 09:15
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-03 Batch: WG1193693-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	0.95	J	ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 12/28/18 09:15
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-03 Batch: WG1193693-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 12/28/18 09:15
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-03 Batch: WG1193693-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	92		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-03 Batch: WG1193693-3 WG1193693-4								
Methylene chloride	91		83		70-130	9		30
1,1-Dichloroethane	97		92		70-130	5		30
Chloroform	84		79		70-130	6		30
Carbon tetrachloride	95		88		70-130	8		30
1,2-Dichloropropane	98		92		70-130	6		30
Dibromochloromethane	95		94		70-130	1		30
1,1,2-Trichloroethane	88		86		70-130	2		30
Tetrachloroethene	96		91		70-130	5		30
Chlorobenzene	90		85		70-130	6		30
Trichlorofluoromethane	94		85		70-139	10		30
1,2-Dichloroethane	93		89		70-130	4		30
1,1,1-Trichloroethane	93		87		70-130	7		30
Bromodichloromethane	84		82		70-130	2		30
trans-1,3-Dichloropropene	91		89		70-130	2		30
cis-1,3-Dichloropropene	86		83		70-130	4		30
1,1-Dichloropropene	88		83		70-130	6		30
Bromoform	94		92		70-130	2		30
1,1,2,2-Tetrachloroethane	86		86		70-130	0		30
Benzene	84		78		70-130	7		30
Toluene	88		83		70-130	6		30
Ethylbenzene	88		83		70-130	6		30
Chloromethane	134	Q	127		52-130	5		30
Bromomethane	158	Q	153	Q	57-147	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-03 Batch: WG1193693-3 WG1193693-4								
Vinyl chloride	129		118		67-130	9		30
Chloroethane	109		102		50-151	7		30
1,1-Dichloroethene	93		90		65-135	3		30
trans-1,2-Dichloroethene	94		86		70-130	9		30
Trichloroethene	88		82		70-130	7		30
1,2-Dichlorobenzene	90		85		70-130	6		30
1,3-Dichlorobenzene	90		86		70-130	5		30
1,4-Dichlorobenzene	92		85		70-130	8		30
Methyl tert butyl ether	89		85		66-130	5		30
p/m-Xylene	89		84		70-130	6		30
o-Xylene	89		84		70-130	6		30
cis-1,2-Dichloroethene	90		86		70-130	5		30
Dibromomethane	88		85		70-130	3		30
Styrene	86		83		70-130	4		30
Dichlorodifluoromethane	138		129		30-146	7		30
Acetone	90		96		54-140	6		30
Carbon disulfide	80		76		59-130	5		30
2-Butanone	82		94		70-130	14		30
Vinyl acetate	101		105		70-130	4		30
4-Methyl-2-pentanone	102		111		70-130	8		30
1,2,3-Trichloropropane	84		83		68-130	1		30
2-Hexanone	87		95		70-130	9		30
Bromochloromethane	96		95		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-03 Batch: WG1193693-3 WG1193693-4								
2,2-Dichloropropane	89		84		70-130	6		30
1,2-Dibromoethane	93		94		70-130	1		30
1,3-Dichloropropane	87		86		69-130	1		30
1,1,1,2-Tetrachloroethane	97		93		70-130	4		30
Bromobenzene	90		83		70-130	8		30
n-Butylbenzene	89		82		70-130	8		30
sec-Butylbenzene	85		79		70-130	7		30
tert-Butylbenzene	92		84		70-130	9		30
o-Chlorotoluene	85		79		70-130	7		30
p-Chlorotoluene	87		80		70-130	8		30
1,2-Dibromo-3-chloropropane	94		95		68-130	1		30
Hexachlorobutadiene	88		81		67-130	8		30
Isopropylbenzene	84		78		70-130	7		30
p-Isopropyltoluene	93		86		70-130	8		30
Naphthalene	92		91		70-130	1		30
Acrylonitrile	110		113		70-130	3		30
n-Propylbenzene	86		79		70-130	8		30
1,2,3-Trichlorobenzene	88		84		70-130	5		30
1,2,4-Trichlorobenzene	91		85		70-130	7		30
1,3,5-Trimethylbenzene	86		79		70-130	8		30
1,2,4-Trimethylbenzene	86		80		70-130	7		30
1,4-Dioxane	103		105		65-136	2		30
p-Diethylbenzene	92		85		70-130	8		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852610

Report Date: 01/03/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-03 Batch: WG1193693-3 WG1193693-4								
p-Ethyltoluene	84		78		70-130	7		30
1,2,4,5-Tetramethylbenzene	88		83		70-130	6		30
Ethyl ether	94		91		67-130	3		30
trans-1,4-Dichloro-2-butene	101		98		70-130	3		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	101		101		70-130
Toluene-d8	102		103		70-130
4-Bromofluorobenzene	98		97		70-130
Dibromofluoromethane	96		93		70-130

SEMIVOLATILES

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-01
 Client ID: RB07_0-2
 Sample Location: BRONX, NY

Date Collected: 12/20/18 12:10
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/03/19 01:25
 Analyst: ALS
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 01/02/19 14:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	21.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	25.	1
2-Chloronaphthalene	ND		ug/kg	190	18.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	32.	1
1,4-Dichlorobenzene	ND		ug/kg	190	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	37.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	1300		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	530	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	64	J	ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	64.	1
Butyl benzyl phthalate	ND		ug/kg	190	47.	1
Di-n-butylphthalate	ND		ug/kg	190	35.	1
Di-n-octylphthalate	ND		ug/kg	190	63.	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852610**Project Number:** 170487001**Report Date:** 01/03/19**SAMPLE RESULTS**

Lab ID: L1852610-01

Date Collected: 12/20/18 12:10

Client ID: RB07_0-2

Date Received: 12/20/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	17.	1
Dimethyl phthalate	ND		ug/kg	190	39.	1
Benzo(a)anthracene	760		ug/kg	110	21.	1
Benzo(a)pyrene	810		ug/kg	150	46.	1
Benzo(b)fluoranthene	1100		ug/kg	110	31.	1
Benzo(k)fluoranthene	430		ug/kg	110	30.	1
Chrysene	840		ug/kg	110	19.	1
Acenaphthylene	460		ug/kg	150	29.	1
Anthracene	180		ug/kg	110	36.	1
Benzo(ghi)perylene	750		ug/kg	150	22.	1
Fluorene	23	J	ug/kg	190	18.	1
Phenanthrene	320		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	150		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	710		ug/kg	150	26.	1
Pyrene	1200		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	43.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	36.	1
3-Nitroaniline	ND		ug/kg	190	35.	1
4-Nitroaniline	ND		ug/kg	190	77.	1
Dibenzofuran	22	J	ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	19.	1
Acetophenone	ND		ug/kg	190	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	62.	1
2-Nitrophenol	ND		ug/kg	400	70.	1
4-Nitrophenol	ND		ug/kg	260	76.	1
2,4-Dinitrophenol	ND		ug/kg	900	87.	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	90.	1
Pentachlorophenol	ND		ug/kg	150	41.	1
Phenol	ND		ug/kg	190	28.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	29.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-01
 Client ID: RB07_0-2
 Sample Location: BRONX, NY

Date Collected: 12/20/18 12:10
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Benzoic Acid	ND		ug/kg	600	190	1
Benzyl Alcohol	ND		ug/kg	190	57.	1
Carbazole	65	J	ug/kg	190	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	76		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	85		10-136
4-Terphenyl-d14	73		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-02
 Client ID: RB07_8-10
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:30
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/03/19 01:01
 Analyst: ALS
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 01/02/19 14:22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	140	J	ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	1900		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	120	J	ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852610**Project Number:** 170487001**Report Date:** 01/03/19**SAMPLE RESULTS**

Lab ID: L1852610-02

Date Collected: 12/20/18 13:30

Client ID: RB07_8-10

Date Received: 12/20/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	850		ug/kg	110	21.	1
Benzo(a)pyrene	760		ug/kg	150	46.	1
Benzo(b)fluoranthene	940		ug/kg	110	32.	1
Benzo(k)fluoranthene	350		ug/kg	110	30.	1
Chrysene	790		ug/kg	110	20.	1
Acenaphthylene	95	J	ug/kg	150	29.	1
Anthracene	440		ug/kg	110	37.	1
Benzo(ghi)perylene	500		ug/kg	150	22.	1
Fluorene	150	J	ug/kg	190	18.	1
Phenanthrene	1500		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	110		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	530		ug/kg	150	26.	1
Pyrene	1700		ug/kg	110	19.	1
Biphenyl	ND		ug/kg	430	44.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	79.	1
Dibenzofuran	100	J	ug/kg	190	18.	1
2-Methylnaphthalene	120	J	ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	63.	1
2-Nitrophenol	ND		ug/kg	410	71.	1
4-Nitrophenol	ND		ug/kg	270	78.	1
2,4-Dinitrophenol	ND		ug/kg	910	88.	1
4,6-Dinitro-o-cresol	ND		ug/kg	490	91.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-02
 Client ID: RB07_8-10
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:30
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Benzoic Acid	ND		ug/kg	620	190	1
Benzyl Alcohol	ND		ug/kg	190	58.	1
Carbazole	110	J	ug/kg	190	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		25-120
Phenol-d6	67		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	84		30-120
2,4,6-Tribromophenol	46		10-136
4-Terphenyl-d14	72		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-03
 Client ID: RB07_10-12
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:45
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/27/18 23:32
 Analyst: ALS
 Percent Solids: 81%

Extraction Method: EPA 3546
 Extraction Date: 12/23/18 00:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	26	J	ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	23.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	35.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	35.	1
Fluoranthene	520		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	30.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	33	J	ug/kg	200	25.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	70.	1
Butyl benzyl phthalate	ND		ug/kg	200	51.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	69.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-03
 Client ID: RB07_10-12
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:45
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	290		ug/kg	120	23.	1
Benzo(a)pyrene	290		ug/kg	160	49.	1
Benzo(b)fluoranthene	370		ug/kg	120	34.	1
Benzo(k)fluoranthene	130		ug/kg	120	32.	1
Chrysene	270		ug/kg	120	21.	1
Acenaphthylene	34	J	ug/kg	160	31.	1
Anthracene	71	J	ug/kg	120	39.	1
Benzo(ghi)perylene	220		ug/kg	160	24.	1
Fluorene	26	J	ug/kg	200	20.	1
Phenanthrene	330		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	48	J	ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	220		ug/kg	160	28.	1
Pyrene	460		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	47.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	84.	1
Dibenzofuran	21	J	ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	67.	1
2-Nitrophenol	ND		ug/kg	440	76.	1
4-Nitrophenol	ND		ug/kg	280	82.	1
2,4-Dinitrophenol	ND		ug/kg	970	94.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	97.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	32.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-03
 Client ID: RB07_10-12
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:45
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Benzoic Acid	ND		ug/kg	660	200	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	34	J	ug/kg	200	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		25-120
Phenol-d6	69		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	79		10-136
4-Terphenyl-d14	76		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/26/18 23:10
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 12/23/18 00:38

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1192476-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	98	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	98	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 12/26/18 23:10
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 12/23/18 00:38

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1192476-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	28.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	62.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D
 Analytical Date: 12/26/18 23:10
 Analyst: JG

Extraction Method: EPA 3546
 Extraction Date: 12/23/18 00:38

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 03 Batch: WG1192476-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	76.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	530	160
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	82		25-120
Phenol-d6	87		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	83		30-120
2,4,6-Tribromophenol	100		10-136
4-Terphenyl-d14	82		18-120

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D
 Analytical Date: 01/02/19 13:45
 Analyst: EK

Extraction Method: EPA 3546
 Extraction Date: 01/02/19 10:07

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1193985-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	170	19.
Hexachlorobenzene	ND		ug/kg	100	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	170	16.
1,2-Dichlorobenzene	ND		ug/kg	170	30.
1,3-Dichlorobenzene	ND		ug/kg	170	28.
1,4-Dichlorobenzene	ND		ug/kg	170	29.
3,3'-Dichlorobenzidine	ND		ug/kg	170	44.
2,4-Dinitrotoluene	ND		ug/kg	170	33.
2,6-Dinitrotoluene	ND		ug/kg	170	28.
Fluoranthene	ND		ug/kg	100	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.
4-Bromophenyl phenyl ether	ND		ug/kg	170	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.
Hexachlorobutadiene	ND		ug/kg	170	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	22.
Naphthalene	ND		ug/kg	170	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	170	26.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	57.
Butyl benzyl phthalate	ND		ug/kg	170	42.
Di-n-butylphthalate	ND		ug/kg	170	31.
Di-n-octylphthalate	ND		ug/kg	170	56.
Diethyl phthalate	ND		ug/kg	170	15.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/02/19 13:45
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 01/02/19 10:07

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1193985-1					
Dimethyl phthalate	ND		ug/kg	170	35.
Benzo(a)anthracene	ND		ug/kg	100	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	100	28.
Benzo(k)fluoranthene	ND		ug/kg	100	26.
Chrysene	ND		ug/kg	100	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	100	32.
Benzo(ghi)perylene	ND		ug/kg	130	20.
Fluorene	ND		ug/kg	170	16.
Phenanthrene	ND		ug/kg	100	20.
Dibenzo(a,h)anthracene	ND		ug/kg	100	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	100	16.
Biphenyl	ND		ug/kg	380	38.
4-Chloroaniline	ND		ug/kg	170	30.
2-Nitroaniline	ND		ug/kg	170	32.
3-Nitroaniline	ND		ug/kg	170	31.
4-Nitroaniline	ND		ug/kg	170	69.
Dibenzofuran	ND		ug/kg	170	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	17.
Acetophenone	ND		ug/kg	170	20.
2,4,6-Trichlorophenol	ND		ug/kg	100	31.
p-Chloro-m-cresol	ND		ug/kg	170	25.
2-Chlorophenol	ND		ug/kg	170	20.
2,4-Dichlorophenol	ND		ug/kg	150	27.
2,4-Dimethylphenol	ND		ug/kg	170	55.
2-Nitrophenol	ND		ug/kg	360	62.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 01/02/19 13:45
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 01/02/19 10:07

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG1193985-1					
4-Nitrophenol	ND		ug/kg	230	68.
2,4-Dinitrophenol	ND		ug/kg	800	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	80.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	170	25.
2-Methylphenol	ND		ug/kg	170	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	170	32.
Benzoic Acid	ND		ug/kg	540	170
Benzyl Alcohol	ND		ug/kg	170	51.
Carbazole	ND		ug/kg	170	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	81		25-120
Phenol-d6	85		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	94		30-120
2,4,6-Tribromophenol	95		10-136
4-Terphenyl-d14	93		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1192476-2 WG1192476-3								
Acenaphthene	74		80		31-137	8		50
1,2,4-Trichlorobenzene	69		72		38-107	4		50
Hexachlorobenzene	80		85		40-140	6		50
Bis(2-chloroethyl)ether	68		70		40-140	3		50
2-Chloronaphthalene	74		79		40-140	7		50
1,2-Dichlorobenzene	65		67		40-140	3		50
1,3-Dichlorobenzene	65		66		40-140	2		50
1,4-Dichlorobenzene	64		66		28-104	3		50
3,3'-Dichlorobenzidine	58		59		40-140	2		50
2,4-Dinitrotoluene	88		93		40-132	6		50
2,6-Dinitrotoluene	86		90		40-140	5		50
Fluoranthene	78		84		40-140	7		50
4-Chlorophenyl phenyl ether	72		77		40-140	7		50
4-Bromophenyl phenyl ether	74		81		40-140	9		50
Bis(2-chloroisopropyl)ether	62		65		40-140	5		50
Bis(2-chloroethoxy)methane	73		77		40-117	5		50
Hexachlorobutadiene	67		70		40-140	4		50
Hexachlorocyclopentadiene	56		58		40-140	4		50
Hexachloroethane	70		72		40-140	3		50
Isophorone	79		83		40-140	5		50
Naphthalene	69		72		40-140	4		50
Nitrobenzene	72		74		40-140	3		50
NDPA/DPA	78		83		36-157	6		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1192476-2 WG1192476-3									
n-Nitrosodi-n-propylamine	74		79		32-121		7		50
Bis(2-ethylhexyl)phthalate	81		86		40-140		6		50
Butyl benzyl phthalate	88		95		40-140		8		50
Di-n-butylphthalate	89		95		40-140		7		50
Di-n-octylphthalate	84		90		40-140		7		50
Diethyl phthalate	82		88		40-140		7		50
Dimethyl phthalate	81		85		40-140		5		50
Benzo(a)anthracene	72		78		40-140		8		50
Benzo(a)pyrene	82		93		40-140		13		50
Benzo(b)fluoranthene	84		90		40-140		7		50
Benzo(k)fluoranthene	80		91		40-140		13		50
Chrysene	77		82		40-140		6		50
Acenaphthylene	79		84		40-140		6		50
Anthracene	78		85		40-140		9		50
Benzo(ghi)perylene	78		88		40-140		12		50
Fluorene	78		83		40-140		6		50
Phenanthrene	72		78		40-140		8		50
Dibenzo(a,h)anthracene	77		87		40-140		12		50
Indeno(1,2,3-cd)pyrene	78		84		40-140		7		50
Pyrene	77		83		35-142		8		50
Biphenyl	78		83		54-104		6		50
4-Chloroaniline	72		75		40-140		4		50
2-Nitroaniline	84		89		47-134		6		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1192476-2 WG1192476-3								
3-Nitroaniline	55		58		26-129	5		50
4-Nitroaniline	75		80		41-125	6		50
Dibenzofuran	74		80		40-140	8		50
2-Methylnaphthalene	71		75		40-140	5		50
1,2,4,5-Tetrachlorobenzene	75		79		40-117	5		50
Acetophenone	78		82		14-144	5		50
2,4,6-Trichlorophenol	81		86		30-130	6		50
p-Chloro-m-cresol	82		88		26-103	7		50
2-Chlorophenol	73		76		25-102	4		50
2,4-Dichlorophenol	78		82		30-130	5		50
2,4-Dimethylphenol	80		84		30-130	5		50
2-Nitrophenol	78		80		30-130	3		50
4-Nitrophenol	79		84		11-114	6		50
2,4-Dinitrophenol	80		79		4-130	1		50
4,6-Dinitro-o-cresol	82		85		10-130	4		50
Pentachlorophenol	65		67		17-109	3		50
Phenol	66		69		26-90	4		50
2-Methylphenol	75		78		30-130.	4		50
3-Methylphenol/4-Methylphenol	79		84		30-130	6		50
2,4,5-Trichlorophenol	81		84		30-130	4		50
Benzoic Acid	27		53		10-110	65	Q	50
Benzyl Alcohol	78		82		40-140	5		50
Carbazole	77		84		54-128	9		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 03 Batch: WG1192476-2 WG1192476-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	75		77		25-120
Phenol-d6	80		83		10-120
Nitrobenzene-d5	80		83		23-120
2-Fluorobiphenyl	81		84		30-120
2,4,6-Tribromophenol	101		106		10-136
4-Terphenyl-d14	77		82		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1193985-2 WG1193985-3								
Acenaphthene	67		67		31-137	0		50
1,2,4-Trichlorobenzene	79		79		38-107	0		50
Hexachlorobenzene	84		81		40-140	4		50
Bis(2-chloroethyl)ether	69		69		40-140	0		50
2-Chloronaphthalene	82		83		40-140	1		50
1,2-Dichlorobenzene	71		71		40-140	0		50
1,3-Dichlorobenzene	68		69		40-140	1		50
1,4-Dichlorobenzene	70		70		28-104	0		50
3,3'-Dichlorobenzidine	68		71		40-140	4		50
2,4-Dinitrotoluene	70		69		40-132	1		50
2,6-Dinitrotoluene	84		81		40-140	4		50
Fluoranthene	82		82		40-140	0		50
4-Chlorophenyl phenyl ether	73		72		40-140	1		50
4-Bromophenyl phenyl ether	79		77		40-140	3		50
Bis(2-chloroisopropyl)ether	68		68		40-140	0		50
Bis(2-chloroethoxy)methane	73		73		40-117	0		50
Hexachlorobutadiene	81		79		40-140	3		50
Hexachlorocyclopentadiene	43		47		40-140	9		50
Hexachloroethane	65		64		40-140	2		50
Isophorone	74		75		40-140	1		50
Naphthalene	75		75		40-140	0		50
Nitrobenzene	71		70		40-140	1		50
NDPA/DPA	73		73		36-157	0		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1193985-2 WG1193985-3								
n-Nitrosodi-n-propylamine	72		72		32-121	0		50
Bis(2-ethylhexyl)phthalate	78		77		40-140	1		50
Butyl benzyl phthalate	79		78		40-140	1		50
Di-n-butylphthalate	82		81		40-140	1		50
Di-n-octylphthalate	77		76		40-140	1		50
Diethyl phthalate	69		68		40-140	1		50
Dimethyl phthalate	85		83		40-140	2		50
Benzo(a)anthracene	77		75		40-140	3		50
Benzo(a)pyrene	78		78		40-140	0		50
Benzo(b)fluoranthene	76		77		40-140	1		50
Benzo(k)fluoranthene	82		81		40-140	1		50
Chrysene	78		79		40-140	1		50
Acenaphthylene	86		85		40-140	1		50
Anthracene	82		81		40-140	1		50
Benzo(ghi)perylene	76		76		40-140	0		50
Fluorene	74		74		40-140	0		50
Phenanthrene	78		77		40-140	1		50
Dibenzo(a,h)anthracene	77		76		40-140	1		50
Indeno(1,2,3-cd)pyrene	76		75		40-140	1		50
Pyrene	83		82		35-142	1		50
Biphenyl	83		82		54-104	1		50
4-Chloroaniline	35	Q	44		40-140	23		50
2-Nitroaniline	85		85		47-134	0		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1193985-2 WG1193985-3								
3-Nitroaniline	47		52		26-129	10		50
4-Nitroaniline	57		57		41-125	0		50
Dibenzofuran	71		70		40-140	1		50
2-Methylnaphthalene	78		79		40-140	1		50
1,2,4,5-Tetrachlorobenzene	86		86		40-117	0		50
Acetophenone	74		73		14-144	1		50
2,4,6-Trichlorophenol	90		87		30-130	3		50
p-Chloro-m-cresol	84		84		26-103	0		50
2-Chlorophenol	77		76		25-102	1		50
2,4-Dichlorophenol	85		84		30-130	1		50
2,4-Dimethylphenol	83		83		30-130	0		50
2-Nitrophenol	76		76		30-130	0		50
4-Nitrophenol	71		68		11-114	4		50
2,4-Dinitrophenol	41		40		4-130	2		50
4,6-Dinitro-o-cresol	47		48		10-130	2		50
Pentachlorophenol	82		80		17-109	2		50
Phenol	73		74		26-90	1		50
2-Methylphenol	76		76		30-130.	0		50
3-Methylphenol/4-Methylphenol	76		77		30-130	1		50
2,4,5-Trichlorophenol	95		92		30-130	3		50
Benzoic Acid	62		63		10-110	2		50
Benzyl Alcohol	77		79		40-140	3		50
Carbazole	79		78		54-128	1		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG1193985-2 WG1193985-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	71		71		25-120
Phenol-d6	74		76		10-120
Nitrobenzene-d5	71		72		23-120
2-Fluorobiphenyl	82		82		30-120
2,4,6-Tribromophenol	84		85		10-136
4-Terphenyl-d14	83		82		18-120

PCBS

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-01
 Client ID: RB07_0-2
 Sample Location: BRONX, NY

Date Collected: 12/20/18 12:10
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/27/18 16:21
 Analyst: WR
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 12/23/18 18:47
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/26/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/26/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.4	3.24	1	A
Aroclor 1221	ND		ug/kg	36.4	3.65	1	A
Aroclor 1232	ND		ug/kg	36.4	7.73	1	A
Aroclor 1242	ND		ug/kg	36.4	4.91	1	A
Aroclor 1248	ND		ug/kg	36.4	5.47	1	A
Aroclor 1254	ND		ug/kg	36.4	3.99	1	A
Aroclor 1260	35.9	J	ug/kg	36.4	6.73	1	B
Aroclor 1262	ND		ug/kg	36.4	4.63	1	A
Aroclor 1268	ND		ug/kg	36.4	3.78	1	A
PCBs, Total	35.9	J	ug/kg	36.4	3.24	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-02
 Client ID: RB07_8-10
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:30
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/27/18 16:34
 Analyst: WR
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 12/23/18 18:47
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/26/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/26/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.6	3.25	1	A
Aroclor 1221	ND		ug/kg	36.6	3.67	1	A
Aroclor 1232	ND		ug/kg	36.6	7.76	1	A
Aroclor 1242	ND		ug/kg	36.6	4.94	1	A
Aroclor 1248	ND		ug/kg	36.6	5.49	1	A
Aroclor 1254	ND		ug/kg	36.6	4.01	1	A
Aroclor 1260	8.65	J	ug/kg	36.6	6.77	1	A
Aroclor 1262	ND		ug/kg	36.6	4.65	1	A
Aroclor 1268	ND		ug/kg	36.6	3.79	1	A
PCBs, Total	8.65	J	ug/kg	36.6	3.25	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	65		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	75		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-03
 Client ID: RB07_10-12
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:45
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/27/18 16:47
 Analyst: WR
 Percent Solids: 81%

Extraction Method: EPA 3546
 Extraction Date: 12/23/18 18:47
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/26/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/26/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.6	3.43	1	A
Aroclor 1221	ND		ug/kg	38.6	3.87	1	A
Aroclor 1232	ND		ug/kg	38.6	8.19	1	A
Aroclor 1242	ND		ug/kg	38.6	5.21	1	A
Aroclor 1248	ND		ug/kg	38.6	5.79	1	A
Aroclor 1254	ND		ug/kg	38.6	4.22	1	A
Aroclor 1260	ND		ug/kg	38.6	7.14	1	A
Aroclor 1262	ND		ug/kg	38.6	4.90	1	A
Aroclor 1268	ND		ug/kg	38.6	4.00	1	A
PCBs, Total	ND		ug/kg	38.6	3.43	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	67		30-150	B
Decachlorobiphenyl	66		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8082A
Analytical Date: 12/27/18 15:42
Analyst: WR

Extraction Method: EPA 3546
Extraction Date: 12/23/18 18:47
Cleanup Method: EPA 3665A
Cleanup Date: 12/26/18
Cleanup Method: EPA 3660B
Cleanup Date: 12/26/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-03 Batch: WG1192574-1						
Aroclor 1016	ND		ug/kg	32.5	2.88	A
Aroclor 1221	ND		ug/kg	32.5	3.26	A
Aroclor 1232	ND		ug/kg	32.5	6.89	A
Aroclor 1242	ND		ug/kg	32.5	4.38	A
Aroclor 1248	ND		ug/kg	32.5	4.87	A
Aroclor 1254	ND		ug/kg	32.5	3.55	A
Aroclor 1260	ND		ug/kg	32.5	6.00	A
Aroclor 1262	ND		ug/kg	32.5	4.13	A
Aroclor 1268	ND		ug/kg	32.5	3.36	A
PCBs, Total	ND		ug/kg	32.5	2.88	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	75		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-03 Batch: WG1192574-2 WG1192574-3									
Aroclor 1016	58		64		40-140	10		50	A
Aroclor 1260	48		50		40-140	4		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		70		30-150	A
Decachlorobiphenyl	61		61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		76		30-150	B
Decachlorobiphenyl	69		68		30-150	B

PESTICIDES

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-01
 Client ID: RB07_0-2
 Sample Location: BRONX, NY

Date Collected: 12/20/18 12:10
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/28/18 11:45
 Analyst: SL
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 12/23/18 17:18
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.73	0.338	1	A
Lindane	ND		ug/kg	0.720	0.322	1	A
Alpha-BHC	ND		ug/kg	0.720	0.204	1	A
Beta-BHC	ND		ug/kg	1.73	0.655	1	A
Heptachlor	ND		ug/kg	0.863	0.387	1	A
Aldrin	ND		ug/kg	1.73	0.608	1	A
Heptachlor epoxide	ND		ug/kg	3.24	0.971	1	A
Endrin	ND		ug/kg	0.720	0.295	1	A
Endrin aldehyde	ND		ug/kg	2.16	0.756	1	A
Endrin ketone	ND		ug/kg	1.73	0.445	1	A
Dieldrin	1.57	IP	ug/kg	1.08	0.540	1	B
4,4'-DDE	12.9		ug/kg	1.73	0.399	1	A
4,4'-DDD	0.913	J	ug/kg	1.73	0.616	1	A
4,4'-DDT	26.9		ug/kg	3.24	1.39	1	B
Endosulfan I	ND		ug/kg	1.73	0.408	1	A
Endosulfan II	ND	I	ug/kg	1.73	0.577	1	A
Endosulfan sulfate	0.392	JIP	ug/kg	0.720	0.342	1	A
Methoxychlor	ND		ug/kg	3.24	1.01	1	A
Toxaphene	ND		ug/kg	32.4	9.07	1	A
cis-Chlordane	5.02	P	ug/kg	2.16	0.602	1	A
trans-Chlordane	5.13	P	ug/kg	2.16	0.570	1	A
Chlordane	ND		ug/kg	14.0	5.72	1	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852610**Project Number:** 170487001**Report Date:** 01/03/19**SAMPLE RESULTS**

Lab ID: L1852610-01

Date Collected: 12/20/18 12:10

Client ID: RB07_0-2

Date Received: 12/20/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		30-150	B
Decachlorobiphenyl	90		30-150	B
2,4,5,6-Tetrachloro-m-xylene	85		30-150	A
Decachlorobiphenyl	62		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-01
 Client ID: RB07_0-2
 Sample Location: BRONX, NY

Date Collected: 12/20/18 12:10
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/23/18 14:18
 Analyst: KEG
 Percent Solids: 89%
 Methylation Date: 12/22/18 21:00

Extraction Method: EPA 8151A
 Extraction Date: 12/22/18 02:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	185	11.7	1	B
2,4,5-T	ND		ug/kg	185	5.74	1	B
2,4,5-TP (Silvex)	ND		ug/kg	185	4.92	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	113		30-150	A
DCAA	95		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-02
 Client ID: RB07_8-10
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:30
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/28/18 11:58
 Analyst: SL
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 12/23/18 17:18
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.80	0.352	1	A
Lindane	ND		ug/kg	0.749	0.335	1	A
Alpha-BHC	ND		ug/kg	0.749	0.213	1	A
Beta-BHC	ND		ug/kg	1.80	0.682	1	A
Heptachlor	ND		ug/kg	0.899	0.403	1	A
Aldrin	ND		ug/kg	1.80	0.633	1	A
Heptachlor epoxide	ND		ug/kg	3.37	1.01	1	A
Endrin	ND		ug/kg	0.749	0.307	1	A
Endrin aldehyde	ND		ug/kg	2.25	0.786	1	A
Endrin ketone	ND		ug/kg	1.80	0.463	1	A
Dieldrin	ND		ug/kg	1.12	0.562	1	A
4,4'-DDE	6.67		ug/kg	1.80	0.416	1	A
4,4'-DDD	ND	IP	ug/kg	1.80	0.641	1	B
4,4'-DDT	16.6		ug/kg	3.37	1.44	1	A
Endosulfan I	ND		ug/kg	1.80	0.425	1	A
Endosulfan II	ND		ug/kg	1.80	0.601	1	A
Endosulfan sulfate	1.20		ug/kg	0.749	0.356	1	A
Methoxychlor	ND		ug/kg	3.37	1.05	1	A
Toxaphene	ND		ug/kg	33.7	9.44	1	A
cis-Chlordane	1.05	JIP	ug/kg	2.25	0.626	1	B
trans-Chlordane	1.29	JIP	ug/kg	2.25	0.593	1	B
Chlordane	ND		ug/kg	14.6	5.96	1	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-02
 Client ID: RB07_8-10
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:30
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	98		30-150	B
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	66		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-02
 Client ID: RB07_8-10
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:30
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/23/18 14:37
 Analyst: KEG
 Percent Solids: 86%
 Methylation Date: 12/22/18 21:00

Extraction Method: EPA 8151A
 Extraction Date: 12/22/18 02:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	190	12.0	1	B
2,4,5-T	ND		ug/kg	190	5.89	1	B
2,4,5-TP (Silvex)	ND		ug/kg	190	5.05	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	102		30-150	A
DCAA	89		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-03
 Client ID: RB07_10-12
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:45
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/28/18 12:10
 Analyst: SL
 Percent Solids: 81%

Extraction Method: EPA 3546
 Extraction Date: 12/23/18 17:18
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.93	0.378	1	A
Lindane	ND		ug/kg	0.805	0.360	1	A
Alpha-BHC	ND		ug/kg	0.805	0.229	1	A
Beta-BHC	ND		ug/kg	1.93	0.733	1	A
Heptachlor	ND		ug/kg	0.966	0.433	1	A
Aldrin	ND		ug/kg	1.93	0.680	1	A
Heptachlor epoxide	ND		ug/kg	3.62	1.09	1	A
Endrin	ND		ug/kg	0.805	0.330	1	A
Endrin aldehyde	ND		ug/kg	2.42	0.846	1	A
Endrin ketone	ND		ug/kg	1.93	0.498	1	A
Dieldrin	ND		ug/kg	1.21	0.604	1	A
4,4'-DDE	3.02	P	ug/kg	1.93	0.447	1	A
4,4'-DDD	1.30	JP	ug/kg	1.93	0.689	1	A
4,4'-DDT	4.26	P	ug/kg	3.62	1.55	1	A
Endosulfan I	ND		ug/kg	1.93	0.457	1	A
Endosulfan II	ND		ug/kg	1.93	0.646	1	A
Endosulfan sulfate	0.772	J	ug/kg	0.805	0.383	1	A
Methoxychlor	ND		ug/kg	3.62	1.13	1	A
Toxaphene	ND		ug/kg	36.2	10.1	1	A
cis-Chlordane	ND		ug/kg	2.42	0.673	1	A
trans-Chlordane	0.811	JIP	ug/kg	2.42	0.638	1	B
Chlordane	ND		ug/kg	15.7	6.40	1	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852610**Project Number:** 170487001**Report Date:** 01/03/19**SAMPLE RESULTS**

Lab ID: L1852610-03

Date Collected: 12/20/18 13:45

Client ID: RB07_10-12

Date Received: 12/20/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	B
Decachlorobiphenyl	86		30-150	B
2,4,5,6-Tetrachloro-m-xylene	85		30-150	A
Decachlorobiphenyl	59		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-03
 Client ID: RB07_10-12
 Sample Location: BRONX, NY

Date Collected: 12/20/18 13:45
 Date Received: 12/20/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/23/18 14:56
 Analyst: KEG
 Percent Solids: 81%
 Methylation Date: 12/22/18 21:00

Extraction Method: EPA 8151A
 Extraction Date: 12/22/18 02:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	205	12.9	1	B
2,4,5-T	ND		ug/kg	205	6.36	1	B
2,4,5-TP (Silvex)	ND		ug/kg	205	5.45	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	105		30-150	A
DCAA	88		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8151A
Analytical Date: 12/23/18 12:44
Analyst: KEG

Extraction Method: EPA 8151A
Extraction Date: 12/22/18 02:15

Methylation Date: 12/22/18 21:00

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-03 Batch: WG1192311-1						
2,4-D	ND		ug/kg	164	10.3	B
2,4,5-T	ND		ug/kg	164	5.07	B
2,4,5-TP (Silvex)	ND		ug/kg	164	4.35	B

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	79		30-150	A
DCAA	78		30-150	B

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 12/28/18 13:05
 Analyst: KEG

Extraction Method: EPA 3546
 Extraction Date: 12/23/18 17:18
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-03 Batch: WG1192564-1						
Delta-BHC	ND		ug/kg	1.57	0.308	A
Lindane	ND		ug/kg	0.656	0.293	A
Alpha-BHC	ND		ug/kg	0.656	0.186	A
Beta-BHC	ND		ug/kg	1.57	0.597	A
Heptachlor	ND		ug/kg	0.787	0.353	A
Aldrin	ND		ug/kg	1.57	0.554	A
Heptachlor epoxide	ND		ug/kg	2.95	0.886	A
Endrin	ND		ug/kg	0.656	0.269	A
Endrin aldehyde	ND		ug/kg	1.97	0.689	A
Endrin ketone	ND		ug/kg	1.57	0.406	A
Dieldrin	ND		ug/kg	0.984	0.492	A
4,4'-DDE	ND		ug/kg	1.57	0.364	A
4,4'-DDD	ND		ug/kg	1.57	0.562	A
4,4'-DDT	ND		ug/kg	2.95	1.27	A
Endosulfan I	ND		ug/kg	1.57	0.372	A
Endosulfan II	ND		ug/kg	1.57	0.526	A
Endosulfan sulfate	ND		ug/kg	0.656	0.312	A
Methoxychlor	ND		ug/kg	2.95	0.919	A
Toxaphene	ND		ug/kg	29.5	8.27	A
cis-Chlordane	ND		ug/kg	1.97	0.548	A
trans-Chlordane	ND		ug/kg	1.97	0.520	A
Chlordane	ND		ug/kg	12.8	5.22	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852610**Project Number:** 170487001**Report Date:** 01/03/19**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 12/28/18 13:05
 Analyst: KEG

Extraction Method: EPA 3546
 Extraction Date: 12/23/18 17:18
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-03 Batch: WG1192564-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	77		30-150	B
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	77		30-150	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-03 Batch: WG1192311-2 WG1192311-3									
2,4-D	87		96		30-150	10		30	B
2,4,5-T	86		94		30-150	9		30	B
2,4,5-TP (Silvex)	81		88		30-150	8		30	B

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	89		102		30-150	A
DCAA	83		97		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-03 Batch: WG1192564-2 WG1192564-3									
Delta-BHC	85		81		30-150	5		30	A
Lindane	85		81		30-150	5		30	A
Alpha-BHC	88		84		30-150	5		30	A
Beta-BHC	77		77		30-150	0		30	A
Heptachlor	89		83		30-150	7		30	A
Aldrin	82		78		30-150	5		30	A
Heptachlor epoxide	88		84		30-150	5		30	A
Endrin	89		86		30-150	3		30	A
Endrin aldehyde	60		60		30-150	0		30	A
Endrin ketone	82		83		30-150	1		30	A
Dieldrin	93		91		30-150	2		30	A
4,4'-DDE	82		78		30-150	5		30	A
4,4'-DDD	86		83		30-150	4		30	A
4,4'-DDT	88		86		30-150	2		30	A
Endosulfan I	79		75		30-150	5		30	A
Endosulfan II	81		78		30-150	4		30	A
Endosulfan sulfate	64		64		30-150	0		30	A
Methoxychlor	90		89		30-150	1		30	A
cis-Chlordane	68		65		30-150	5		30	A
trans-Chlordane	51		57		30-150	11		30	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-03 Batch: WG1192564-2 WG1192564-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		72		30-150	B
Decachlorobiphenyl	77		77		30-150	B
2,4,5,6-Tetrachloro-m-xylene	69		66		30-150	A
Decachlorobiphenyl	80		80		30-150	A

METALS

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-01

Date Collected: 12/20/18 12:10

Client ID: RB07_0-2

Date Received: 12/20/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	7260		mg/kg	8.88	2.40	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.44	0.337	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Arsenic, Total	3.39		mg/kg	0.888	0.185	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Barium, Total	468		mg/kg	0.888	0.154	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Beryllium, Total	ND		mg/kg	0.444	0.029	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Cadmium, Total	0.506	J	mg/kg	0.888	0.087	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Calcium, Total	36500		mg/kg	8.88	3.11	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Chromium, Total	13.6		mg/kg	0.888	0.085	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Cobalt, Total	7.28		mg/kg	1.78	0.147	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Copper, Total	18.2		mg/kg	0.888	0.229	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Iron, Total	13000		mg/kg	4.44	0.802	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Lead, Total	164		mg/kg	4.44	0.238	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Magnesium, Total	6830		mg/kg	8.88	1.37	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Manganese, Total	301		mg/kg	0.888	0.141	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Mercury, Total	0.150		mg/kg	0.071	0.015	1	12/22/18 04:40	12/26/18 18:27	EPA 7471B	1,7471B	MG
Nickel, Total	14.2		mg/kg	2.22	0.215	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Potassium, Total	3120		mg/kg	222	12.8	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Selenium, Total	0.364	J	mg/kg	1.78	0.229	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.888	0.251	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Sodium, Total	323		mg/kg	178	2.80	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.78	0.280	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Vanadium, Total	23.2		mg/kg	0.888	0.180	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
Zinc, Total	221		mg/kg	4.44	0.260	2	12/26/18 20:30	12/28/18 21:57	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	12		mg/kg	0.90	0.90	1		12/28/18 21:57	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-02

Date Collected: 12/20/18 13:30

Client ID: RB07_8-10

Date Received: 12/20/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	8070		mg/kg	8.71	2.35	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.35	0.331	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Arsenic, Total	4.87		mg/kg	0.871	0.181	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Barium, Total	456		mg/kg	0.871	0.152	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Beryllium, Total	0.174	J	mg/kg	0.435	0.029	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Cadmium, Total	1.21		mg/kg	0.871	0.085	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Calcium, Total	25200		mg/kg	8.71	3.05	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Chromium, Total	19.1		mg/kg	0.871	0.084	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Cobalt, Total	7.58		mg/kg	1.74	0.144	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Copper, Total	22.0		mg/kg	0.871	0.225	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Iron, Total	14000		mg/kg	4.35	0.786	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Lead, Total	94.0		mg/kg	4.35	0.233	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Magnesium, Total	11700		mg/kg	8.71	1.34	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Manganese, Total	392		mg/kg	0.871	0.138	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Mercury, Total	0.171		mg/kg	0.073	0.015	1	12/22/18 04:40	12/26/18 18:29	EPA 7471B	1,7471B	MG
Nickel, Total	37.0		mg/kg	2.18	0.211	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Potassium, Total	1440		mg/kg	218	12.5	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Selenium, Total	ND		mg/kg	1.74	0.225	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.871	0.246	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Sodium, Total	124	J	mg/kg	174	2.74	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.74	0.274	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Vanadium, Total	27.4		mg/kg	0.871	0.177	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
Zinc, Total	293		mg/kg	4.35	0.255	2	12/26/18 20:30	12/28/18 22:34	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	19		mg/kg	0.93	0.93	1		12/28/18 22:34	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852610**Project Number:** 170487001**Report Date:** 01/03/19**SAMPLE RESULTS**

Lab ID: L1852610-03

Date Collected: 12/20/18 13:45

Client ID: RB07_10-12

Date Received: 12/20/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	3210		mg/kg	9.66	2.61	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Antimony, Total	0.425	J	mg/kg	4.83	0.367	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Arsenic, Total	7.24		mg/kg	0.966	0.201	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Barium, Total	340		mg/kg	0.966	0.168	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Beryllium, Total	0.135	J	mg/kg	0.483	0.032	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Cadmium, Total	1.59		mg/kg	0.966	0.095	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Calcium, Total	14300		mg/kg	9.66	3.38	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Chromium, Total	28.4		mg/kg	0.966	0.093	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Cobalt, Total	4.97		mg/kg	1.93	0.160	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Copper, Total	85.3		mg/kg	0.966	0.249	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Iron, Total	10300		mg/kg	4.83	0.872	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Lead, Total	282		mg/kg	4.83	0.259	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Magnesium, Total	2130		mg/kg	9.66	1.49	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Manganese, Total	128		mg/kg	0.966	0.154	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Mercury, Total	1.83		mg/kg	0.078	0.016	1	12/22/18 04:40	12/26/18 18:30	EPA 7471B	1,7471B	MG
Nickel, Total	23.6		mg/kg	2.42	0.234	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Potassium, Total	545		mg/kg	242	13.9	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Selenium, Total	10.9		mg/kg	1.93	0.249	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.966	0.273	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Sodium, Total	121	J	mg/kg	193	3.04	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.93	0.304	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Vanadium, Total	13.1		mg/kg	0.966	0.196	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
Zinc, Total	321		mg/kg	4.83	0.283	2	12/26/18 20:30	12/28/18 22:38	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	28		mg/kg	0.99	0.99	1		12/28/18 22:38	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1192315-1										
Mercury, Total	0.019	J	mg/kg	0.083	0.018	1	12/22/18 04:40	12/26/18 14:09	1,7471B	MG

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1192853-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Antimony, Total	ND		mg/kg	2.00	0.152	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Arsenic, Total	ND		mg/kg	0.400	0.083	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Barium, Total	ND		mg/kg	0.400	0.070	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Beryllium, Total	ND		mg/kg	0.200	0.013	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Cadmium, Total	ND		mg/kg	0.400	0.039	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Calcium, Total	ND		mg/kg	4.00	1.40	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Chromium, Total	ND		mg/kg	0.400	0.038	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Cobalt, Total	ND		mg/kg	0.800	0.066	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Copper, Total	ND		mg/kg	0.400	0.103	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Iron, Total	0.428	J	mg/kg	2.00	0.361	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Lead, Total	ND		mg/kg	2.00	0.107	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Magnesium, Total	ND		mg/kg	4.00	0.616	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Manganese, Total	ND		mg/kg	0.400	0.064	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Nickel, Total	ND		mg/kg	1.00	0.097	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Potassium, Total	ND		mg/kg	100	5.76	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Selenium, Total	ND		mg/kg	0.800	0.103	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Silver, Total	ND		mg/kg	0.400	0.113	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Sodium, Total	ND		mg/kg	80.0	1.26	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Thallium, Total	ND		mg/kg	0.800	0.126	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Vanadium, Total	ND		mg/kg	0.400	0.081	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC
Zinc, Total	ND		mg/kg	2.00	0.117	1	12/26/18 20:30	12/28/18 21:25	1,6010D	MC



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1192315-2 SRM Lot Number: D102-540								
Mercury, Total	95		-		65-134	-		



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1192853-2 SRM Lot Number: D102-540					
Aluminum, Total	72	-	49-150	-	
Antimony, Total	148	-	1-199	-	
Arsenic, Total	100	-	83-117	-	
Barium, Total	96	-	83-118	-	
Beryllium, Total	96	-	83-116	-	
Cadmium, Total	94	-	83-118	-	
Calcium, Total	97	-	82-118	-	
Chromium, Total	94	-	83-117	-	
Cobalt, Total	94	-	84-116	-	
Copper, Total	91	-	84-116	-	
Iron, Total	97	-	61-139	-	
Lead, Total	95	-	82-118	-	
Magnesium, Total	83	-	76-124	-	
Manganese, Total	93	-	82-118	-	
Nickel, Total	94	-	83-117	-	
Potassium, Total	86	-	70-130	-	
Selenium, Total	96	-	79-121	-	
Silver, Total	96	-	80-120	-	
Sodium, Total	98	-	74-126	-	
Thallium, Total	95	-	81-119	-	
Vanadium, Total	93	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1192853-2 SRM Lot Number: D102-540					
Zinc, Total	93	-	81-118	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1192315-3 QC Sample: L1849633-01 Client ID: MS Sample												
Mercury, Total	ND	0.148	0.170	115		-	-		80-120	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1192853-3 QC Sample: L1852610-01 Client ID: RB07_0-2									
Aluminum, Total	7260	175	7400	80	-	-	75-125	-	20
Antimony, Total	ND	43.7	33.1	76	-	-	75-125	-	20
Arsenic, Total	3.39	10.5	13.8	99	-	-	75-125	-	20
Barium, Total	468	175	500	18	Q	-	75-125	-	20
Beryllium, Total	ND	4.37	4.04	92	-	-	75-125	-	20
Cadmium, Total	0.506J	4.46	4.57	102	-	-	75-125	-	20
Calcium, Total	36500	874	48600	1380	Q	-	75-125	-	20
Chromium, Total	13.6	17.5	29.7	92	-	-	75-125	-	20
Cobalt, Total	7.28	43.7	44.6	85	-	-	75-125	-	20
Copper, Total	18.2	21.8	35.8	80	-	-	75-125	-	20
Iron, Total	13000	87.4	13600	686	Q	-	75-125	-	20
Lead, Total	164	44.6	169	11	Q	-	75-125	-	20
Magnesium, Total	6830	874	7940	127	Q	-	75-125	-	20
Manganese, Total	301	43.7	384	190	Q	-	75-125	-	20
Nickel, Total	14.2	43.7	51.5	85	-	-	75-125	-	20
Potassium, Total	3120	874	4110	113	-	-	75-125	-	20
Selenium, Total	0.364J	10.5	9.79	93	-	-	75-125	-	20
Silver, Total	ND	26.2	26.7	102	-	-	75-125	-	20
Sodium, Total	323	874	1100	89	-	-	75-125	-	20
Thallium, Total	ND	10.5	8.17	78	-	-	75-125	-	20
Vanadium, Total	23.2	43.7	62.4	90	-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1192853-3 QC Sample: L1852610-01 Client ID: RB07_0-2									
Zinc, Total	221	43.7	255	78	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852610

Report Date: 01/03/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1192315-4 QC Sample: L1849633-01 Client ID: DUP Sample						
Mercury, Total	ND	0.020J	mg/kg	NC		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852610

Report Date: 01/03/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1192853-4 QC Sample: L1852610-01 Client ID: RB07_0-2					
Aluminum, Total	7260	8010	mg/kg	10	20
Antimony, Total	ND	ND	mg/kg	NC	20
Arsenic, Total	3.39	3.95	mg/kg	15	20
Barium, Total	468	471	mg/kg	1	20
Beryllium, Total	ND	ND	mg/kg	NC	20
Cadmium, Total	0.506J	0.727J	mg/kg	NC	20
Calcium, Total	36500	38100	mg/kg	4	20
Chromium, Total	13.6	14.8	mg/kg	8	20
Cobalt, Total	7.28	7.97	mg/kg	9	20
Copper, Total	18.2	17.2	mg/kg	6	20
Iron, Total	13000	13300	mg/kg	2	20
Lead, Total	164	181	mg/kg	10	20
Magnesium, Total	6830	7090	mg/kg	4	20
Manganese, Total	301	292	mg/kg	3	20
Nickel, Total	14.2	15.1	mg/kg	6	20
Potassium, Total	3120	3660	mg/kg	16	20
Selenium, Total	0.364J	0.522J	mg/kg	NC	20
Silver, Total	ND	ND	mg/kg	NC	20
Sodium, Total	323	394	mg/kg	20	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852610

Report Date: 01/03/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1192853-4 QC Sample: L1852610-01 Client ID: RB07_0-2					
Thallium, Total	ND	ND	mg/kg	NC	20
Vanadium, Total	23.2	24.1	mg/kg	4	20
Zinc, Total	221	293	mg/kg	28	Q 20

INORGANICS & MISCELLANEOUS

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-01

Date Collected: 12/20/18 12:10

Client ID: RB07_0-2

Date Received: 12/20/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.8		%	0.100	NA	1	-	12/21/18 12:56	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	12/22/18 12:55	12/26/18 14:35	1,9010C/9012B	LH
Chromium, Hexavalent	1.54		mg/kg	0.901	0.180	1	12/22/18 23:30	12/26/18 21:15	1,7196A	CW



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-02

Date Collected: 12/20/18 13:30

Client ID: RB07_8-10

Date Received: 12/20/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.4		%	0.100	NA	1	-	12/21/18 12:56	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	12/22/18 12:55	12/26/18 14:38	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.926	0.185	1	12/22/18 23:30	12/26/18 21:15	1,7196A	CW



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

SAMPLE RESULTS

Lab ID: L1852610-03

Date Collected: 12/20/18 13:45

Client ID: RB07_10-12

Date Received: 12/20/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.0		%	0.100	NA	1	-	12/21/18 12:56	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	12/22/18 12:55	12/26/18 14:39	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.988	0.198	1	12/22/18 23:30	12/26/18 21:15	1,7196A	CW



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852610

Project Number: 170487001

Report Date: 01/03/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1192409-1										
Cyanide, Total	ND		mg/kg	0.92	0.20	1	12/22/18 12:55	12/26/18 14:12	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1192485-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	12/22/18 23:30	12/26/18 21:15	1,7196A	CW

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852610

Report Date: 01/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1192409-2 WG1192409-3								
Cyanide, Total	71	Q	77	Q	80-120	6		35
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1192485-2								
Chromium, Hexavalent	83		-		80-120	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1192409-4 WG1192409-5 QC Sample: L1852610-01 Client ID: RB07_0-2												
Cyanide, Total	ND	10	8.4	82		10	90		75-125	17		35
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1192485-4 QC Sample: L1852610-01 Client ID: RB07_0-2												
Chromium, Hexavalent	1.54	751	783	104		-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852610

Report Date: 01/03/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1192128-1 QC Sample: L1852646-01 Client ID: DUP Sample						
Solids, Total	93.3	94.0	%	1		20
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1192485-6 QC Sample: L1852610-01 Client ID: RB07_0-2						
Chromium, Hexavalent	1.54	ND	mg/kg	NC		20

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852610**Project Number:** 170487001**Report Date:** 01/03/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1852610-01A	Vial MeOH preserved	A	NA		2.4	Y	Absent		NYTCL-8260HLW(14)
L1852610-01B	Vial water preserved	A	NA		2.4	Y	Absent	21-DEC-18 08:21	NYTCL-8260HLW(14)
L1852610-01C	Vial water preserved	A	NA		2.4	Y	Absent	21-DEC-18 08:21	NYTCL-8260HLW(14)
L1852610-01D	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L1852610-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852610-01F	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1852610-01G	Glass 500ml/16oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1852610-02A	Vial MeOH preserved	A	NA		2.4	Y	Absent		NYTCL-8260HLW(14)
L1852610-02B	Vial water preserved	A	NA		2.4	Y	Absent	21-DEC-18 08:21	NYTCL-8260HLW(14)
L1852610-02C	Vial water preserved	A	NA		2.4	Y	Absent	21-DEC-18 08:21	NYTCL-8260HLW(14)
L1852610-02D	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L1852610-02E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852610-02F	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1852610-02G	Glass 500ml/16oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1852610-03A	Vial MeOH preserved	A	NA		2.4	Y	Absent		NYTCL-8260HLW(14)

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852610**Project Number:** 170487001**Report Date:** 01/03/19**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1852610-03B	Vial water preserved	A	NA		2.4	Y	Absent	21-DEC-18 08:21	NYTCL-8260HLW(14)
L1852610-03C	Vial water preserved	A	NA		2.4	Y	Absent	21-DEC-18 08:21	NYTCL-8260HLW(14)
L1852610-03D	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L1852610-03E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852610-03F	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1852610-03G	Glass 500ml/16oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

Container Comments

L1852610-01A WM: sample broken 12/22/18 00:10 when being placed in custody fridge

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852610
Report Date: 01/03/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page of	Date Rec'd in Lab 12/20/18	ALPHA Job # 11852610						
		Project Information Project Name: Gerard Ave + E. 146th St. Project Location: Bronx, NY Project # 170487001 (Use Project name as Project #) <input type="checkbox"/>			Deliverables <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #					
Client Information Client: Langan Engineering Address: 21 Penn Plaza, 360 W. 31st St 8th Fl., NY, NY 10001-2727 Phone: (212) 479-5400 Fax: (212) 479-5444 Email: jleung@langan.com		Project Manager: Julia Leung ALPHAQuote #: 7013 Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:						
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: Please also cc: datamanagement@langan.com and vzuluaga@langan.com Please specify Metals or TAL.			ANALYSIS			Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below) Sample Specific Comments						
							Total Bottle					
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Part 375/TCL VOCs		Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals
		Date	Time									
52610-01	RB07_0-2	12/20/18	12:16 pm	Soil	JS	X	X	X	X	X	X	X
-02	RB07_8-10	↓	13:30	↓	JS	X	X	X	X	X	X	X
-03	RB07_10-12	↓	17:45	↓	JA	X	X	X	X	X	X	X
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type		Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)		
		Relinquished By:		Date/Time		Received By:		Date/Time				
		[Signature]		12-20-18 14:12		[Signature]		12-20-18 14:12				
		[Signature]		12-20-18 15:00		[Signature]		12/20/18 1900				
		P. Santos AAL		12/20/18 2325		[Signature]		12/20/18 2325				



ANALYTICAL REPORT

Lab Number:	L1852926
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	GERARD AVE + E. 146TH ST.
Project Number:	170487001
Report Date:	01/04/19

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852926

Report Date: 01/04/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1852926-01	RB05_0-2	SOIL	BRONX, NY	12/21/18 09:35	12/21/18
L1852926-02	RB05_8-10	SOIL	BRONX, NY	12/21/18 09:40	12/21/18
L1852926-03	RB05_13-15	SOIL	BRONX, NY	12/21/18 09:50	12/21/18
L1852926-04	RB05_19-21	SOIL	BRONX, NY	12/21/18 10:00	12/21/18
L1852926-05	RB06_0-2	SOIL	BRONX, NY	12/21/18 12:30	12/21/18
L1852926-06	RB06_8-10	SOIL	BRONX, NY	12/21/18 12:40	12/21/18
L1852926-07	RB06_10-12	SOIL	BRONX, NY	12/21/18 12:50	12/21/18
L1852926-08	RB04_0-2	SOIL	BRONX, NY	12/21/18 13:30	12/21/18
L1852926-09	RB04_8-10	SOIL	BRONX, NY	12/21/18 13:40	12/21/18
L1852926-10	RB04_13-15	SOIL	BRONX, NY	12/21/18 13:50	12/21/18
L1852926-11	SODUP01_122118	SOIL	BRONX, NY	12/21/18 00:00	12/21/18
L1852926-12	SOTB01_122118	WATER	BRONX, NY	12/21/18 00:00	12/21/18
L1852926-13	SOFB01_122118	WATER	BRONX, NY	12/21/18 14:45	12/21/18
L1852926-14	RB04_18-20	SOIL	BRONX, NY	12/21/18 14:00	12/21/18

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Pesticides

L1852926-03, -04, -10, and -14: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

L1852926-03, -04, -10, and -14: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (0%) and decachlorobiphenyl (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

L1852926-06: The sample has elevated detection limits due to limited sample volume available for analysis.

L1852926-13: The surrogate recoveries were outside the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (17%) and decachlorobiphenyl (13%); however, the criteria were achieved upon re-extraction outside of holding time. The results of both extractions are reported.

Herbicides

The surrogate recoveries for the WG1192478-1 Method Blank, associated with L1852926-01 through -11, and -14, are below the acceptance criteria for dcaa (0%). The associated samples are non-detect and have acceptable surrogate recoveries or surrogates that fail high; therefore, no further actions were taken.

Total Metals

L1852926-01 through -11 and -14: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1193229-3 MS recoveries for aluminum (23%), calcium (988%), iron (0%), lead (1700%), magnesium (72%), manganese (163%) and zinc (474%), performed on L1852926-01, do not apply because the sample concentrations are greater than four times the spike amount added.

The WG1193229-3 MS recovery, performed on L1852926-01, is outside the acceptance criteria for barium (320%). A post digestion spike was performed and was within acceptance criteria.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Case Narrative (continued)

The WG1193229-4 Laboratory Duplicate RPD for iron (22%), performed on L1852926-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

Cyanide, Total

The WG1192428-2/-3 LCS/LCSD recoveries (73%/78%), associated with L1852926-01 through -08, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

The WG1192704-3 LCSD recovery (72%), associated with L1852926-09,-10,-11, and -14, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

Hexavalent Chromium

The WG1192810-4 Insoluble MS recovery (0%), performed on L1852926-10, is below the acceptance criteria. The Soluble MS recovery (0%) was also below criteria. This has been attributed to matrix interference. A post-spike was performed with an acceptable recovery of 104%.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 01/04/19

ORGANICS

VOLATILES

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-01
 Client ID: RB05_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:35
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/03/19 08:38
 Analyst: JC
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.5	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.29	1
Tetrachloroethene	1.9		ug/kg	0.55	0.21	1
Chlorobenzene	ND		ug/kg	0.55	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.4	0.76	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.55	0.18	1
Bromodichloromethane	ND		ug/kg	0.55	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	0.55	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.55	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.55	0.17	1
Bromoform	ND		ug/kg	4.4	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.55	0.18	1
Benzene	ND		ug/kg	0.55	0.18	1
Toluene	ND		ug/kg	1.1	0.60	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.4	1.0	1
Bromomethane	ND		ug/kg	2.2	0.64	1
Vinyl chloride	ND		ug/kg	1.1	0.37	1
Chloroethane	ND		ug/kg	2.2	0.50	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-01

Date Collected: 12/21/18 09:35

Client ID: RB05_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.55	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.61	1
o-Xylene	ND		ug/kg	1.1	0.32	1
Xylenes, Total	ND		ug/kg	1.1	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.2	0.26	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	ND		ug/kg	11	5.3	1
Carbon disulfide	ND		ug/kg	11	5.0	1
2-Butanone	ND		ug/kg	11	2.4	1
Vinyl acetate	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.2	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.2	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
1,3-Dichloropropane	ND		ug/kg	2.2	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.55	0.14	1
Bromobenzene	ND		ug/kg	2.2	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.2	0.13	1
o-Chlorotoluene	ND		ug/kg	2.2	0.21	1
p-Chlorotoluene	ND		ug/kg	2.2	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.3	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.4	0.18	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.4	0.71	1
Acrylonitrile	ND		ug/kg	4.4	1.3	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-01
 Client ID: RB05_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:35
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.35	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.30	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.37	1
1,4-Dioxane	ND		ug/kg	110	38.	1
p-Diethylbenzene	ND		ug/kg	2.2	0.19	1
p-Ethyltoluene	ND		ug/kg	2.2	0.42	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.2	0.21	1
Ethyl ether	ND		ug/kg	2.2	0.37	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.5	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	111		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	104		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-02
 Client ID: RB05_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 17:19
 Analyst: AD
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.7	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.94	0.14	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.94	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.94	0.12	1
Dibromochloromethane	ND		ug/kg	0.94	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.94	0.25	1
Tetrachloroethene	0.32	J	ug/kg	0.47	0.18	1
Chlorobenzene	ND		ug/kg	0.47	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.8	0.65	1
1,2-Dichloroethane	ND		ug/kg	0.94	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	0.47	0.16	1
Bromodichloromethane	ND		ug/kg	0.47	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.94	0.26	1
cis-1,3-Dichloropropene	ND		ug/kg	0.47	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.47	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.47	0.15	1
Bromoform	ND		ug/kg	3.8	0.23	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.47	0.16	1
Benzene	0.17	J	ug/kg	0.47	0.16	1
Toluene	ND		ug/kg	0.94	0.51	1
Ethylbenzene	ND		ug/kg	0.94	0.13	1
Chloromethane	ND		ug/kg	3.8	0.88	1
Bromomethane	ND		ug/kg	1.9	0.55	1
Vinyl chloride	ND		ug/kg	0.94	0.32	1
Chloroethane	ND		ug/kg	1.9	0.42	1
1,1-Dichloroethene	ND		ug/kg	0.94	0.22	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-02

Date Collected: 12/21/18 09:40

Client ID: RB05_8-10

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.47	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.9	0.19	1
p/m-Xylene	ND		ug/kg	1.9	0.53	1
o-Xylene	ND		ug/kg	0.94	0.27	1
Xylenes, Total	ND		ug/kg	0.94	0.27	1
cis-1,2-Dichloroethene	ND		ug/kg	0.94	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	0.94	0.13	1
Dibromomethane	ND		ug/kg	1.9	0.22	1
Styrene	ND		ug/kg	0.94	0.18	1
Dichlorodifluoromethane	ND		ug/kg	9.4	0.86	1
Acetone	ND		ug/kg	9.4	4.5	1
Carbon disulfide	ND		ug/kg	9.4	4.3	1
2-Butanone	ND		ug/kg	9.4	2.1	1
Vinyl acetate	ND		ug/kg	9.4	2.0	1
4-Methyl-2-pentanone	ND		ug/kg	9.4	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	1.9	0.12	1
2-Hexanone	ND		ug/kg	9.4	1.1	1
Bromochloromethane	ND		ug/kg	1.9	0.19	1
2,2-Dichloropropane	ND		ug/kg	1.9	0.19	1
1,2-Dibromoethane	ND		ug/kg	0.94	0.26	1
1,3-Dichloropropane	ND		ug/kg	1.9	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.47	0.12	1
Bromobenzene	ND		ug/kg	1.9	0.14	1
n-Butylbenzene	ND		ug/kg	0.94	0.16	1
sec-Butylbenzene	ND		ug/kg	0.94	0.14	1
tert-Butylbenzene	ND		ug/kg	1.9	0.11	1
o-Chlorotoluene	ND		ug/kg	1.9	0.18	1
p-Chlorotoluene	ND		ug/kg	1.9	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.8	0.94	1
Hexachlorobutadiene	ND		ug/kg	3.8	0.16	1
Isopropylbenzene	ND		ug/kg	0.94	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.94	0.10	1
Naphthalene	ND		ug/kg	3.8	0.61	1
Acrylonitrile	ND		ug/kg	3.8	1.1	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-02
Client ID: RB05_8-10
Sample Location: BRONX, NY

Date Collected: 12/21/18 09:40
Date Received: 12/21/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.94	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.9	0.30	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	0.26	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.9	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.9	0.31	1
1,4-Dioxane	ND		ug/kg	94	33.	1
p-Diethylbenzene	ND		ug/kg	1.9	0.17	1
p-Ethyltoluene	ND		ug/kg	1.9	0.36	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.9	0.18	1
Ethyl ether	ND		ug/kg	1.9	0.32	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.7	1.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	101		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-03
 Client ID: RB05_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 17:44
 Analyst: AD
 Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.4	2.0	1
1,1-Dichloroethane	ND		ug/kg	0.88	0.13	1
Chloroform	ND		ug/kg	1.3	0.12	1
Carbon tetrachloride	ND		ug/kg	0.88	0.20	1
1,2-Dichloropropane	ND		ug/kg	0.88	0.11	1
Dibromochloromethane	ND		ug/kg	0.88	0.12	1
1,1,2-Trichloroethane	ND		ug/kg	0.88	0.23	1
Tetrachloroethene	0.42	J	ug/kg	0.44	0.17	1
Chlorobenzene	ND		ug/kg	0.44	0.11	1
Trichlorofluoromethane	ND		ug/kg	3.5	0.61	1
1,2-Dichloroethane	ND		ug/kg	0.88	0.22	1
1,1,1-Trichloroethane	ND		ug/kg	0.44	0.15	1
Bromodichloromethane	ND		ug/kg	0.44	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.88	0.24	1
cis-1,3-Dichloropropene	ND		ug/kg	0.44	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.44	0.14	1
1,1-Dichloropropene	ND		ug/kg	0.44	0.14	1
Bromoform	ND		ug/kg	3.5	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.44	0.14	1
Benzene	0.14	J	ug/kg	0.44	0.14	1
Toluene	ND		ug/kg	0.88	0.48	1
Ethylbenzene	0.23	J	ug/kg	0.88	0.12	1
Chloromethane	ND		ug/kg	3.5	0.82	1
Bromomethane	ND		ug/kg	1.8	0.51	1
Vinyl chloride	ND		ug/kg	0.88	0.29	1
Chloroethane	ND		ug/kg	1.8	0.40	1
1,1-Dichloroethene	ND		ug/kg	0.88	0.21	1
trans-1,2-Dichloroethene	ND		ug/kg	1.3	0.12	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-03

Date Collected: 12/21/18 09:50

Client ID: RB05_13-15

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.44	0.12	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	0.15	1
Methyl tert butyl ether	ND		ug/kg	1.8	0.18	1
p/m-Xylene	0.88	J	ug/kg	1.8	0.49	1
o-Xylene	0.40	J	ug/kg	0.88	0.26	1
Xylenes, Total	1.3	J	ug/kg	0.88	0.26	1
cis-1,2-Dichloroethene	ND		ug/kg	0.88	0.15	1
1,2-Dichloroethene, Total	ND		ug/kg	0.88	0.12	1
Dibromomethane	ND		ug/kg	1.8	0.21	1
Styrene	ND		ug/kg	0.88	0.17	1
Dichlorodifluoromethane	ND		ug/kg	8.8	0.80	1
Acetone	4.6	J	ug/kg	8.8	4.2	1
Carbon disulfide	ND		ug/kg	8.8	4.0	1
2-Butanone	ND		ug/kg	8.8	1.9	1
Vinyl acetate	ND		ug/kg	8.8	1.9	1
4-Methyl-2-pentanone	ND		ug/kg	8.8	1.1	1
1,2,3-Trichloropropane	ND		ug/kg	1.8	0.11	1
2-Hexanone	ND		ug/kg	8.8	1.0	1
Bromochloromethane	ND		ug/kg	1.8	0.18	1
2,2-Dichloropropane	ND		ug/kg	1.8	0.18	1
1,2-Dibromoethane	ND		ug/kg	0.88	0.24	1
1,3-Dichloropropane	ND		ug/kg	1.8	0.15	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.44	0.12	1
Bromobenzene	ND		ug/kg	1.8	0.13	1
n-Butylbenzene	ND		ug/kg	0.88	0.15	1
sec-Butylbenzene	ND		ug/kg	0.88	0.13	1
tert-Butylbenzene	ND		ug/kg	1.8	0.10	1
o-Chlorotoluene	ND		ug/kg	1.8	0.17	1
p-Chlorotoluene	ND		ug/kg	1.8	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.6	0.88	1
Hexachlorobutadiene	ND		ug/kg	3.5	0.15	1
Isopropylbenzene	ND		ug/kg	0.88	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.88	0.10	1
Naphthalene	ND		ug/kg	3.5	0.57	1
Acrylonitrile	ND		ug/kg	3.5	1.0	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-03
Client ID: RB05_13-15
Sample Location: BRONX, NY

Date Collected: 12/21/18 09:50
Date Received: 12/21/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.88	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	0.28	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	0.24	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	0.29	1
1,4-Dioxane	ND		ug/kg	88	31.	1
p-Diethylbenzene	ND		ug/kg	1.8	0.16	1
p-Ethyltoluene	ND		ug/kg	1.8	0.34	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.8	0.17	1
Ethyl ether	ND		ug/kg	1.8	0.30	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.4	1.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	100		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-04
 Client ID: RB05_19-21
 Sample Location: BRONX, NY

Date Collected: 12/21/18 10:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 18:10
 Analyst: AD
 Percent Solids: 75%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.2	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.6	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.28	1
Tetrachloroethene	ND		ug/kg	0.52	0.20	1
Chlorobenzene	ND		ug/kg	0.52	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.2	0.72	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.52	0.17	1
Bromodichloromethane	ND		ug/kg	0.52	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
cis-1,3-Dichloropropene	ND		ug/kg	0.52	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.52	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.52	0.16	1
Bromoform	ND		ug/kg	4.2	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.52	0.17	1
Benzene	ND		ug/kg	0.52	0.17	1
Toluene	ND		ug/kg	1.0	0.56	1
Ethylbenzene	ND		ug/kg	1.0	0.15	1
Chloromethane	ND		ug/kg	4.2	0.97	1
Bromomethane	ND		ug/kg	2.1	0.60	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
Chloroethane	ND		ug/kg	2.1	0.47	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-04

Date Collected: 12/21/18 10:00

Client ID: RB05_19-21

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.52	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.58	1
o-Xylene	ND		ug/kg	1.0	0.30	1
Xylenes, Total	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.1	0.25	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.95	1
Acetone	23		ug/kg	10	5.0	1
Carbon disulfide	ND		ug/kg	10	4.7	1
2-Butanone	ND		ug/kg	10	2.3	1
Vinyl acetate	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.21	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.29	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.52	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.15	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.1	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.2	0.18	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.2	0.68	1
Acrylonitrile	ND		ug/kg	4.2	1.2	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-04
Client ID: RB05_19-21
Sample Location: BRONX, NY

Date Collected: 12/21/18 10:00
Date Received: 12/21/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.0	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.28	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.35	1
1,4-Dioxane	ND		ug/kg	100	36.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.18	1
p-Ethyltoluene	ND		ug/kg	2.1	0.40	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.35	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.2	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	100		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-05
 Client ID: RB06_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 19:02
 Analyst: AD
 Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.4	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.13	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.29	1
Tetrachloroethene	0.74		ug/kg	0.54	0.21	1
Chlorobenzene	ND		ug/kg	0.54	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.3	0.75	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.54	0.18	1
Bromodichloromethane	ND		ug/kg	0.54	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.54	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.54	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.54	0.17	1
Bromoform	ND		ug/kg	4.3	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.54	0.18	1
Benzene	ND		ug/kg	0.54	0.18	1
Toluene	ND		ug/kg	1.1	0.59	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.3	1.0	1
Bromomethane	ND		ug/kg	2.2	0.63	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.2	0.49	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-05

Date Collected: 12/21/18 12:30

Client ID: RB06_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.54	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.60	1
o-Xylene	ND		ug/kg	1.1	0.31	1
Xylenes, Total	ND		ug/kg	1.1	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.2	0.26	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	0.99	1
Acetone	ND		ug/kg	11	5.2	1
Carbon disulfide	ND		ug/kg	11	4.9	1
2-Butanone	ND		ug/kg	11	2.4	1
Vinyl acetate	ND		ug/kg	11	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.2	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.2	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
1,3-Dichloropropane	ND		ug/kg	2.2	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.54	0.14	1
Bromobenzene	ND		ug/kg	2.2	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.2	0.13	1
o-Chlorotoluene	ND		ug/kg	2.2	0.21	1
p-Chlorotoluene	ND		ug/kg	2.2	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.3	0.18	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.3	0.70	1
Acrylonitrile	ND		ug/kg	4.3	1.2	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-05
Client ID: RB06_0-2
Sample Location: BRONX, NY

Date Collected: 12/21/18 12:30
Date Received: 12/21/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.35	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.36	1
1,4-Dioxane	ND		ug/kg	110	38.	1
p-Diethylbenzene	ND		ug/kg	2.2	0.19	1
p-Ethyltoluene	ND		ug/kg	2.2	0.41	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.2	0.21	1
Ethyl ether	ND		ug/kg	2.2	0.37	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.4	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	102		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-06
 Client ID: RB06_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 20:45
 Analyst: AD
 Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.4	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.13	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.29	1
Tetrachloroethene	0.67		ug/kg	0.54	0.21	1
Chlorobenzene	ND		ug/kg	0.54	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.3	0.74	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.54	0.18	1
Bromodichloromethane	ND		ug/kg	0.54	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.54	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.54	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.54	0.17	1
Bromoform	ND		ug/kg	4.3	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.54	0.18	1
Benzene	ND		ug/kg	0.54	0.18	1
Toluene	ND		ug/kg	1.1	0.58	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.3	1.0	1
Bromomethane	ND		ug/kg	2.1	0.62	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.1	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-06

Date Collected: 12/21/18 12:40

Client ID: RB06_8-10

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.54	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.22	1
p/m-Xylene	ND		ug/kg	2.1	0.60	1
o-Xylene	ND		ug/kg	1.1	0.31	1
Xylenes, Total	ND		ug/kg	1.1	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.1	0.26	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	0.98	1
Acetone	18		ug/kg	11	5.2	1
Carbon disulfide	ND		ug/kg	11	4.9	1
2-Butanone	ND		ug/kg	11	2.4	1
Vinyl acetate	ND		ug/kg	11	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.1	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.54	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.1	0.13	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.3	0.18	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.3	0.70	1
Acrylonitrile	ND		ug/kg	4.3	1.2	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-06
 Client ID: RB06_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.36	1
1,4-Dioxane	ND		ug/kg	110	38.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.19	1
p-Ethyltoluene	ND		ug/kg	2.1	0.41	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.36	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.4	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	88		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-07
 Client ID: RB06_10-12
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 21:11
 Analyst: AD
 Percent Solids: 69%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	7.7	3.5	1
1,1-Dichloroethane	ND		ug/kg	1.5	0.22	1
Chloroform	ND		ug/kg	2.3	0.22	1
Carbon tetrachloride	ND		ug/kg	1.5	0.35	1
1,2-Dichloropropane	ND		ug/kg	1.5	0.19	1
Dibromochloromethane	ND		ug/kg	1.5	0.22	1
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.41	1
Tetrachloroethene	ND		ug/kg	0.77	0.30	1
Chlorobenzene	ND		ug/kg	0.77	0.20	1
Trichlorofluoromethane	ND		ug/kg	6.2	1.1	1
1,2-Dichloroethane	ND		ug/kg	1.5	0.40	1
1,1,1-Trichloroethane	ND		ug/kg	0.77	0.26	1
Bromodichloromethane	ND		ug/kg	0.77	0.17	1
trans-1,3-Dichloropropene	ND		ug/kg	1.5	0.42	1
cis-1,3-Dichloropropene	ND		ug/kg	0.77	0.24	1
1,3-Dichloropropene, Total	ND		ug/kg	0.77	0.24	1
1,1-Dichloropropene	ND		ug/kg	0.77	0.24	1
Bromoform	ND		ug/kg	6.2	0.38	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.77	0.26	1
Benzene	0.38	J	ug/kg	0.77	0.26	1
Toluene	ND		ug/kg	1.5	0.84	1
Ethylbenzene	ND		ug/kg	1.5	0.22	1
Chloromethane	ND		ug/kg	6.2	1.4	1
Bromomethane	ND		ug/kg	3.1	0.90	1
Vinyl chloride	ND		ug/kg	1.5	0.52	1
Chloroethane	ND		ug/kg	3.1	0.70	1
1,1-Dichloroethene	ND		ug/kg	1.5	0.37	1
trans-1,2-Dichloroethene	ND		ug/kg	2.3	0.21	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-07

Date Collected: 12/21/18 12:50

Client ID: RB06_10-12

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.77	0.21	1
1,2-Dichlorobenzene	ND		ug/kg	3.1	0.22	1
1,3-Dichlorobenzene	ND		ug/kg	3.1	0.23	1
1,4-Dichlorobenzene	ND		ug/kg	3.1	0.26	1
Methyl tert butyl ether	ND		ug/kg	3.1	0.31	1
p/m-Xylene	ND		ug/kg	3.1	0.86	1
o-Xylene	ND		ug/kg	1.5	0.45	1
Xylenes, Total	ND		ug/kg	1.5	0.45	1
cis-1,2-Dichloroethene	ND		ug/kg	1.5	0.27	1
1,2-Dichloroethene, Total	ND		ug/kg	1.5	0.21	1
Dibromomethane	ND		ug/kg	3.1	0.37	1
Styrene	ND		ug/kg	1.5	0.30	1
Dichlorodifluoromethane	ND		ug/kg	15	1.4	1
Acetone	26		ug/kg	15	7.4	1
Carbon disulfide	11	J	ug/kg	15	7.0	1
2-Butanone	ND		ug/kg	15	3.4	1
Vinyl acetate	ND		ug/kg	15	3.3	1
4-Methyl-2-pentanone	ND		ug/kg	15	2.0	1
1,2,3-Trichloropropane	ND		ug/kg	3.1	0.20	1
2-Hexanone	ND		ug/kg	15	1.8	1
Bromochloromethane	ND		ug/kg	3.1	0.32	1
2,2-Dichloropropane	ND		ug/kg	3.1	0.31	1
1,2-Dibromoethane	ND		ug/kg	1.5	0.43	1
1,3-Dichloropropane	ND		ug/kg	3.1	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.77	0.20	1
Bromobenzene	ND		ug/kg	3.1	0.22	1
n-Butylbenzene	ND		ug/kg	1.5	0.26	1
sec-Butylbenzene	ND		ug/kg	1.5	0.22	1
tert-Butylbenzene	ND		ug/kg	3.1	0.18	1
o-Chlorotoluene	ND		ug/kg	3.1	0.29	1
p-Chlorotoluene	ND		ug/kg	3.1	0.17	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.6	1.5	1
Hexachlorobutadiene	ND		ug/kg	6.2	0.26	1
Isopropylbenzene	ND		ug/kg	1.5	0.17	1
p-Isopropyltoluene	ND		ug/kg	1.5	0.17	1
Naphthalene	ND		ug/kg	6.2	1.0	1
Acrylonitrile	ND		ug/kg	6.2	1.8	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-07
 Client ID: RB06_10-12
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.5	0.26	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.1	0.50	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.1	0.42	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.1	0.30	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.1	0.51	1
1,4-Dioxane	ND		ug/kg	150	54.	1
p-Diethylbenzene	ND		ug/kg	3.1	0.27	1
p-Ethyltoluene	ND		ug/kg	3.1	0.59	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.1	0.29	1
Ethyl ether	ND		ug/kg	3.1	0.52	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.7	2.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	102		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-08
 Client ID: RB04_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 22:03
 Analyst: MV
 Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.1	2.8	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.18	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.28	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.33	1
Tetrachloroethene	2.2		ug/kg	0.61	0.24	1
Chlorobenzene	ND		ug/kg	0.61	0.16	1
Trichlorofluoromethane	ND		ug/kg	4.9	0.85	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	0.61	0.20	1
Bromodichloromethane	ND		ug/kg	0.61	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.34	1
cis-1,3-Dichloropropene	ND		ug/kg	0.61	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.61	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.61	0.20	1
Bromoform	ND		ug/kg	4.9	0.30	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.61	0.20	1
Benzene	ND		ug/kg	0.61	0.20	1
Toluene	ND		ug/kg	1.2	0.67	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.9	1.1	1
Bromomethane	ND		ug/kg	2.4	0.71	1
Vinyl chloride	ND		ug/kg	1.2	0.41	1
Chloroethane	ND		ug/kg	2.4	0.56	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.17	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-08

Date Collected: 12/21/18 13:30

Client ID: RB04_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.61	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.21	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.25	1
p/m-Xylene	ND		ug/kg	2.4	0.69	1
o-Xylene	ND		ug/kg	1.2	0.36	1
Xylenes, Total	ND		ug/kg	1.2	0.36	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.22	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.17	1
Dibromomethane	ND		ug/kg	2.4	0.29	1
Styrene	ND		ug/kg	1.2	0.24	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.9	1
Carbon disulfide	ND		ug/kg	12	5.6	1
2-Butanone	ND		ug/kg	12	2.7	1
Vinyl acetate	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.6	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.16	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.25	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.25	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.34	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.61	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.18	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.18	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.23	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.7	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.9	0.21	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.9	0.80	1
Acrylonitrile	ND		ug/kg	4.9	1.4	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-08
Client ID: RB04_0-2
Sample Location: BRONX, NY

Date Collected: 12/21/18 13:30
Date Received: 12/21/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.2	0.21	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.40	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.33	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.24	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.41	1
1,4-Dioxane	ND		ug/kg	120	43.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.22	1
p-Ethyltoluene	ND		ug/kg	2.4	0.47	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.4	0.23	1
Ethyl ether	ND		ug/kg	2.4	0.42	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.1	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	104		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-09
 Client ID: RB04_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 22:29
 Analyst: MV
 Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.6	2.1	1
1,1-Dichloroethane	ND		ug/kg	0.93	0.14	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.93	0.21	1
1,2-Dichloropropane	ND		ug/kg	0.93	0.12	1
Dibromochloromethane	ND		ug/kg	0.93	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.93	0.25	1
Tetrachloroethene	ND		ug/kg	0.46	0.18	1
Chlorobenzene	ND		ug/kg	0.46	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.7	0.65	1
1,2-Dichloroethane	ND		ug/kg	0.93	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	0.46	0.16	1
Bromodichloromethane	ND		ug/kg	0.46	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.93	0.25	1
cis-1,3-Dichloropropene	ND		ug/kg	0.46	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.46	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.46	0.15	1
Bromoform	ND		ug/kg	3.7	0.23	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.46	0.15	1
Benzene	ND		ug/kg	0.46	0.15	1
Toluene	ND		ug/kg	0.93	0.50	1
Ethylbenzene	ND		ug/kg	0.93	0.13	1
Chloromethane	ND		ug/kg	3.7	0.87	1
Bromomethane	ND		ug/kg	1.9	0.54	1
Vinyl chloride	ND		ug/kg	0.93	0.31	1
Chloroethane	ND		ug/kg	1.9	0.42	1
1,1-Dichloroethene	ND		ug/kg	0.93	0.22	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-09

Date Collected: 12/21/18 13:40

Client ID: RB04_8-10

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.46	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	0.13	1
1,3-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.9	0.19	1
p/m-Xylene	ND		ug/kg	1.9	0.52	1
o-Xylene	ND		ug/kg	0.93	0.27	1
Xylenes, Total	ND		ug/kg	0.93	0.27	1
cis-1,2-Dichloroethene	ND		ug/kg	0.93	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	0.93	0.13	1
Dibromomethane	ND		ug/kg	1.9	0.22	1
Styrene	ND		ug/kg	0.93	0.18	1
Dichlorodifluoromethane	ND		ug/kg	9.3	0.85	1
Acetone	ND		ug/kg	9.3	4.5	1
Carbon disulfide	ND		ug/kg	9.3	4.2	1
2-Butanone	ND		ug/kg	9.3	2.1	1
Vinyl acetate	ND		ug/kg	9.3	2.0	1
4-Methyl-2-pentanone	ND		ug/kg	9.3	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	1.9	0.12	1
2-Hexanone	ND		ug/kg	9.3	1.1	1
Bromochloromethane	ND		ug/kg	1.9	0.19	1
2,2-Dichloropropane	ND		ug/kg	1.9	0.19	1
1,2-Dibromoethane	ND		ug/kg	0.93	0.26	1
1,3-Dichloropropane	ND		ug/kg	1.9	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.46	0.12	1
Bromobenzene	ND		ug/kg	1.9	0.14	1
n-Butylbenzene	ND		ug/kg	0.93	0.16	1
sec-Butylbenzene	ND		ug/kg	0.93	0.14	1
tert-Butylbenzene	ND		ug/kg	1.9	0.11	1
o-Chlorotoluene	ND		ug/kg	1.9	0.18	1
p-Chlorotoluene	ND		ug/kg	1.9	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.8	0.93	1
Hexachlorobutadiene	ND		ug/kg	3.7	0.16	1
Isopropylbenzene	ND		ug/kg	0.93	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.93	0.10	1
Naphthalene	ND		ug/kg	3.7	0.60	1
Acrylonitrile	ND		ug/kg	3.7	1.1	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-09
 Client ID: RB04_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.93	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.9	0.30	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	0.25	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.9	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.9	0.31	1
1,4-Dioxane	ND		ug/kg	93	33.	1
p-Diethylbenzene	ND		ug/kg	1.9	0.16	1
p-Ethyltoluene	ND		ug/kg	1.9	0.36	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.9	0.18	1
Ethyl ether	ND		ug/kg	1.9	0.32	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.6	1.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	101		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-10
 Client ID: RB04_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 22:55
 Analyst: MV
 Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.8	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.58	0.23	1
Chlorobenzene	ND		ug/kg	0.58	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.7	0.81	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	0.20	1
Bromodichloromethane	ND		ug/kg	0.58	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.58	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.58	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.58	0.18	1
Bromoform	ND		ug/kg	4.7	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.58	0.19	1
Benzene	ND		ug/kg	0.58	0.19	1
Toluene	ND		ug/kg	1.2	0.63	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.7	1.1	1
Bromomethane	ND		ug/kg	2.3	0.68	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.3	0.53	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-10
 Client ID: RB04_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.58	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.65	1
o-Xylene	ND		ug/kg	1.2	0.34	1
Xylenes, Total	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.3	0.28	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	24		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.3	1
2-Butanone	ND		ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.5	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.3	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.3	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.3	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
1,3-Dichloropropane	ND		ug/kg	2.3	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.58	0.15	1
Bromobenzene	ND		ug/kg	2.3	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.3	0.14	1
o-Chlorotoluene	ND		ug/kg	2.3	0.22	1
p-Chlorotoluene	ND		ug/kg	2.3	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.7	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.7	0.76	1
Acrylonitrile	ND		ug/kg	4.7	1.3	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-10
 Client ID: RB04_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.39	1
1,4-Dioxane	ND		ug/kg	120	41.	1
p-Diethylbenzene	ND		ug/kg	2.3	0.21	1
p-Ethyltoluene	ND		ug/kg	2.3	0.45	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.3	0.22	1
Ethyl ether	ND		ug/kg	2.3	0.40	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.8	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	99		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-11
 Client ID: SODUP01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 00:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/03/19 13:15
 Analyst: NLK
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.12	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	0.50		ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.70	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Bromodichloromethane	ND		ug/kg	0.50	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.50	0.16	1
Bromoform	ND		ug/kg	4.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17	1
Benzene	ND		ug/kg	0.50	0.17	1
Toluene	ND		ug/kg	1.0	0.54	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.94	1
Bromomethane	ND		ug/kg	2.0	0.58	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-11
 Client ID: SODUP01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 00:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
Xylenes, Total	ND		ug/kg	1.0	0.29	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.0	0.24	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.92	1
Acetone	ND		ug/kg	10	4.8	1
Carbon disulfide	ND		ug/kg	10	4.6	1
2-Butanone	ND		ug/kg	10	2.2	1
Vinyl acetate	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
1,3-Dichloropropane	ND		ug/kg	2.0	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.0	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.0	0.65	1
Acrylonitrile	ND		ug/kg	4.0	1.2	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-11
 Client ID: SODUP01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 00:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.0	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.34	1
1,4-Dioxane	ND		ug/kg	100	35.	1
p-Diethylbenzene	ND		ug/kg	2.0	0.18	1
p-Ethyltoluene	ND		ug/kg	2.0	0.38	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19	1
Ethyl ether	ND		ug/kg	2.0	0.34	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	103		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-12
 Client ID: SOTB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 00:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 16:45
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-12

Date Collected: 12/21/18 00:00

Client ID: SOTB01_122118

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-12
 Client ID: SOTB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 00:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	103		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-13
 Client ID: SOFB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:45
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 17:15
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-13
 Client ID: SOFB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:45
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-13
 Client ID: SOFB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:45
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	104		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-14
 Client ID: RB04_18-20
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/03/19 09:06
 Analyst: JC
 Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.8	3.1	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.20	1
Chloroform	ND		ug/kg	2.0	0.19	1
Carbon tetrachloride	ND		ug/kg	1.4	0.31	1
1,2-Dichloropropane	ND		ug/kg	1.4	0.17	1
Dibromochloromethane	ND		ug/kg	1.4	0.19	1
1,1,2-Trichloroethane	ND		ug/kg	1.4	0.36	1
Tetrachloroethene	ND		ug/kg	0.68	0.27	1
Chlorobenzene	ND		ug/kg	0.68	0.17	1
Trichlorofluoromethane	ND		ug/kg	5.5	0.95	1
1,2-Dichloroethane	ND		ug/kg	1.4	0.35	1
1,1,1-Trichloroethane	ND		ug/kg	0.68	0.23	1
Bromodichloromethane	ND		ug/kg	0.68	0.15	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	0.37	1
cis-1,3-Dichloropropene	ND		ug/kg	0.68	0.22	1
1,3-Dichloropropene, Total	ND		ug/kg	0.68	0.22	1
1,1-Dichloropropene	ND		ug/kg	0.68	0.22	1
Bromoform	ND		ug/kg	5.5	0.34	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.68	0.23	1
Benzene	0.36	J	ug/kg	0.68	0.23	1
Toluene	ND		ug/kg	1.4	0.74	1
Ethylbenzene	1.6		ug/kg	1.4	0.19	1
Chloromethane	ND		ug/kg	5.5	1.3	1
Bromomethane	ND		ug/kg	2.7	0.79	1
Vinyl chloride	ND		ug/kg	1.4	0.46	1
Chloroethane	ND		ug/kg	2.7	0.62	1
1,1-Dichloroethene	ND		ug/kg	1.4	0.32	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.19	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-14

Date Collected: 12/21/18 14:00

Client ID: RB04_18-20

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.68	0.19	1
1,2-Dichlorobenzene	ND		ug/kg	2.7	0.20	1
1,3-Dichlorobenzene	ND		ug/kg	2.7	0.20	1
1,4-Dichlorobenzene	ND		ug/kg	2.7	0.23	1
Methyl tert butyl ether	ND		ug/kg	2.7	0.27	1
p/m-Xylene	ND		ug/kg	2.7	0.76	1
o-Xylene	0.62	J	ug/kg	1.4	0.40	1
Xylenes, Total	0.62	J	ug/kg	1.4	0.40	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.24	1
1,2-Dichloroethene, Total	ND		ug/kg	1.4	0.19	1
Dibromomethane	ND		ug/kg	2.7	0.32	1
Styrene	ND		ug/kg	1.4	0.27	1
Dichlorodifluoromethane	ND		ug/kg	14	1.2	1
Acetone	52		ug/kg	14	6.6	1
Carbon disulfide	ND		ug/kg	14	6.2	1
2-Butanone	11	J	ug/kg	14	3.0	1
Vinyl acetate	ND		ug/kg	14	2.9	1
4-Methyl-2-pentanone	ND		ug/kg	14	1.7	1
1,2,3-Trichloropropane	ND		ug/kg	2.7	0.17	1
2-Hexanone	ND		ug/kg	14	1.6	1
Bromochloromethane	ND		ug/kg	2.7	0.28	1
2,2-Dichloropropane	ND		ug/kg	2.7	0.28	1
1,2-Dibromoethane	ND		ug/kg	1.4	0.38	1
1,3-Dichloropropane	ND		ug/kg	2.7	0.23	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.68	0.18	1
Bromobenzene	ND		ug/kg	2.7	0.20	1
n-Butylbenzene	0.23	J	ug/kg	1.4	0.23	1
sec-Butylbenzene	0.28	J	ug/kg	1.4	0.20	1
tert-Butylbenzene	0.19	J	ug/kg	2.7	0.16	1
o-Chlorotoluene	ND		ug/kg	2.7	0.26	1
p-Chlorotoluene	ND		ug/kg	2.7	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.1	1.4	1
Hexachlorobutadiene	ND		ug/kg	5.5	0.23	1
Isopropylbenzene	0.78	J	ug/kg	1.4	0.15	1
p-Isopropyltoluene	ND		ug/kg	1.4	0.15	1
Naphthalene	120		ug/kg	5.5	0.89	1
Acrylonitrile	ND		ug/kg	5.5	1.6	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-14
Client ID: RB04_18-20
Sample Location: BRONX, NY

Date Collected: 12/21/18 14:00
Date Received: 12/21/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	0.43	J	ug/kg	1.4	0.23	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.7	0.44	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.7	0.37	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.7	0.26	1
1,2,4-Trimethylbenzene	2.9		ug/kg	2.7	0.46	1
1,4-Dioxane	ND		ug/kg	140	48.	1
p-Diethylbenzene	0.42	J	ug/kg	2.7	0.24	1
p-Ethyltoluene	ND		ug/kg	2.7	0.52	1
1,2,4,5-Tetramethylbenzene	1.7	J	ug/kg	2.7	0.26	1
Ethyl ether	ND		ug/kg	2.7	0.46	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.8	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	102		70-130

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/02/19 09:56
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12-13 Batch: WG1194042-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/02/19 09:56
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12-13 Batch: WG1194042-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/02/19 09:56
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12-13 Batch: WG1194042-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	104		70-130

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/02/19 14:17
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 02-10 Batch: WG1194240-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/02/19 14:17
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 02-10 Batch: WG1194240-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/02/19 14:17
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 02-10 Batch: WG1194240-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	99		70-130

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/03/19 08:10
 Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,11,14 Batch: WG1194326-10					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/03/19 08:10
 Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,11,14 Batch: WG1194326-10					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/03/19 08:10
 Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,11,14 Batch: WG1194326-10					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	103		70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12-13 Batch: WG1194042-3 WG1194042-4								
Methylene chloride	100		110		70-130	10		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	100		110		70-130	10		20
Carbon tetrachloride	100		110		63-132	10		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	100		110		63-130	10		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	100		110		70-130	10		20
Chlorobenzene	100		110		75-130	10		20
Trichlorofluoromethane	100		110		62-150	10		20
1,2-Dichloroethane	100		110		70-130	10		20
1,1,1-Trichloroethane	100		110		67-130	10		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	100		110		70-130	10		20
cis-1,3-Dichloropropene	100		110		70-130	10		20
1,1-Dichloropropene	100		110		70-130	10		20
Bromoform	100		100		54-136	0		20
1,1,1,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	100		110		70-130	10		20
Toluene	100		110		70-130	10		20
Ethylbenzene	100		110		70-130	10		20
Chloromethane	90		92		64-130	2		20
Bromomethane	48		50		39-139	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12-13 Batch: WG1194042-3 WG1194042-4								
Vinyl chloride	100		100		55-140	0		20
Chloroethane	100		110		55-138	10		20
1,1-Dichloroethene	100		110		61-145	10		20
trans-1,2-Dichloroethene	100		110		70-130	10		20
Trichloroethene	100		110		70-130	10		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	99		100		70-130	1		20
Methyl tert butyl ether	100		110		63-130	10		20
p/m-Xylene	100		110		70-130	10		20
o-Xylene	100		110		70-130	10		20
cis-1,2-Dichloroethene	100		110		70-130	10		20
Dibromomethane	100		110		70-130	10		20
1,2,3-Trichloropropane	110		120		64-130	9		20
Acrylonitrile	97		110		70-130	13		20
Styrene	100		105		70-130	5		20
Dichlorodifluoromethane	110		110		36-147	0		20
Acetone	130		130		58-148	0		20
Carbon disulfide	100		110		51-130	10		20
2-Butanone	83		84		63-138	1		20
Vinyl acetate	110		120		70-130	9		20
4-Methyl-2-pentanone	96		100		59-130	4		20
2-Hexanone	98		110		57-130	12		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12-13 Batch: WG1194042-3 WG1194042-4								
Bromochloromethane	110		120		70-130	9		20
2,2-Dichloropropane	100		110		63-133	10		20
1,2-Dibromoethane	100		110		70-130	10		20
1,3-Dichloropropane	100		110		70-130	10		20
1,1,1,2-Tetrachloroethane	100		110		64-130	10		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	110		110		53-136	0		20
sec-Butylbenzene	100		110		70-130	10		20
tert-Butylbenzene	100		110		70-130	10		20
o-Chlorotoluene	93		97		70-130	4		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	94		100		41-144	6		20
Hexachlorobutadiene	110		110		63-130	0		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	110		110		70-130	0		20
Naphthalene	96		100		70-130	4		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	98		100		70-130	2		20
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	128		126		56-162	2		20
p-Diethylbenzene	110		110		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852926

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12-13 Batch: WG1194042-3 WG1194042-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	100		100		70-130	0		20
Ethyl ether	110		110		59-134	0		20
trans-1,4-Dichloro-2-butene	94		97		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	108		109		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	104		101		70-130
Dibromofluoromethane	103		104		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02-10 Batch: WG1194240-3 WG1194240-4								
Methylene chloride	84		81		70-130	4		30
1,1-Dichloroethane	87		83		70-130	5		30
Chloroform	91		88		70-130	3		30
Carbon tetrachloride	92		87		70-130	6		30
1,2-Dichloropropane	82		81		70-130	1		30
Dibromochloromethane	84		82		70-130	2		30
1,1,2-Trichloroethane	86		86		70-130	0		30
Tetrachloroethene	92		90		70-130	2		30
Chlorobenzene	85		83		70-130	2		30
Trichlorofluoromethane	112		106		70-139	6		30
1,2-Dichloroethane	83		82		70-130	1		30
1,1,1-Trichloroethane	93		87		70-130	7		30
Bromodichloromethane	84		83		70-130	1		30
trans-1,3-Dichloropropene	86		84		70-130	2		30
cis-1,3-Dichloropropene	84		83		70-130	1		30
1,1-Dichloropropene	93		90		70-130	3		30
Bromoform	84		84		70-130	0		30
1,1,2,2-Tetrachloroethane	81		81		70-130	0		30
Benzene	87		84		70-130	4		30
Toluene	86		82		70-130	5		30
Ethylbenzene	83		80		70-130	4		30
Chloromethane	92		82		52-130	11		30
Bromomethane	105		100		57-147	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02-10 Batch: WG1194240-3 WG1194240-4								
Vinyl chloride	106		97		67-130	9		30
Chloroethane	113		105		50-151	7		30
1,1-Dichloroethene	92		87		65-135	6		30
trans-1,2-Dichloroethene	90		84		70-130	7		30
Trichloroethene	87		86		70-130	1		30
1,2-Dichlorobenzene	83		84		70-130	1		30
1,3-Dichlorobenzene	86		86		70-130	0		30
1,4-Dichlorobenzene	83		83		70-130	0		30
Methyl tert butyl ether	84		82		66-130	2		30
p/m-Xylene	86		84		70-130	2		30
o-Xylene	84		83		70-130	1		30
cis-1,2-Dichloroethene	90		84		70-130	7		30
Dibromomethane	90		89		70-130	1		30
Styrene	80		78		70-130	3		30
Dichlorodifluoromethane	80		72		30-146	11		30
Acetone	72		69		54-140	4		30
Carbon disulfide	92		85		59-130	8		30
2-Butanone	59	Q	54	Q	70-130	9		30
Vinyl acetate	83		80		70-130	4		30
4-Methyl-2-pentanone	71		73		70-130	3		30
1,2,3-Trichloropropane	81		82		68-130	1		30
2-Hexanone	60	Q	64	Q	70-130	6		30
Bromochloromethane	93		91		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02-10 Batch: WG1194240-3 WG1194240-4								
2,2-Dichloropropane	84		80		70-130	5		30
1,2-Dibromoethane	89		89		70-130	0		30
1,3-Dichloropropane	86		85		69-130	1		30
1,1,1,2-Tetrachloroethane	85		83		70-130	2		30
Bromobenzene	86		85		70-130	1		30
n-Butylbenzene	82		84		70-130	2		30
sec-Butylbenzene	82		83		70-130	1		30
tert-Butylbenzene	86		87		70-130	1		30
o-Chlorotoluene	86		80		70-130	7		30
p-Chlorotoluene	82		80		70-130	2		30
1,2-Dibromo-3-chloropropane	81		79		68-130	3		30
Hexachlorobutadiene	83		86		67-130	4		30
Isopropylbenzene	86		86		70-130	0		30
p-Isopropyltoluene	85		86		70-130	1		30
Naphthalene	80		80		70-130	0		30
Acrylonitrile	81		80		70-130	1		30
n-Propylbenzene	85		85		70-130	0		30
1,2,3-Trichlorobenzene	85		87		70-130	2		30
1,2,4-Trichlorobenzene	83		85		70-130	2		30
1,3,5-Trimethylbenzene	84		86		70-130	2		30
1,2,4-Trimethylbenzene	83		83		70-130	0		30
1,4-Dioxane	105		98		65-136	7		30
p-Diethylbenzene	79		80		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852926

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02-10 Batch: WG1194240-3 WG1194240-4								
p-Ethyltoluene	80		82		70-130	2		30
1,2,4,5-Tetramethylbenzene	78		78		70-130	0		30
Ethyl ether	87		86		67-130	1		30
trans-1,4-Dichloro-2-butene	76		75		70-130	1		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	94		95		70-130
Toluene-d8	99		99		70-130
4-Bromofluorobenzene	93		94		70-130
Dibromofluoromethane	101		102		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,11,14 Batch: WG1194326-8 WG1194326-9									
Methylene chloride	85		82		70-130		4		30
1,1-Dichloroethane	96		93		70-130		3		30
Chloroform	95		92		70-130		3		30
Carbon tetrachloride	96		92		70-130		4		30
1,2-Dichloropropane	99		95		70-130		4		30
Dibromochloromethane	96		96		70-130		0		30
1,1,2-Trichloroethane	104		102		70-130		2		30
Tetrachloroethene	101		98		70-130		3		30
Chlorobenzene	98		96		70-130		2		30
Trichlorofluoromethane	87		84		70-139		4		30
1,2-Dichloroethane	100		97		70-130		3		30
1,1,1-Trichloroethane	100		96		70-130		4		30
Bromodichloromethane	97		96		70-130		1		30
trans-1,3-Dichloropropene	98		97		70-130		1		30
cis-1,3-Dichloropropene	93		92		70-130		1		30
1,1-Dichloropropene	110		106		70-130		4		30
Bromoform	97		96		70-130		1		30
1,1,2,2-Tetrachloroethane	103		100		70-130		3		30
Benzene	98		94		70-130		4		30
Toluene	103		99		70-130		4		30
Ethylbenzene	107		104		70-130		3		30
Chloromethane	92		85		52-130		8		30
Bromomethane	68		68		57-147		0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,11,14 Batch: WG1194326-8 WG1194326-9								
Vinyl chloride	88		83		67-130	6		30
Chloroethane	80		77		50-151	4		30
1,1-Dichloroethene	98		83		65-135	17		30
trans-1,2-Dichloroethene	89		86		70-130	3		30
Trichloroethene	98		93		70-130	5		30
1,2-Dichlorobenzene	100		100		70-130	0		30
1,3-Dichlorobenzene	101		101		70-130	0		30
1,4-Dichlorobenzene	99		96		70-130	3		30
Methyl tert butyl ether	95		94		66-130	1		30
p/m-Xylene	107		105		70-130	2		30
o-Xylene	107		105		70-130	2		30
cis-1,2-Dichloroethene	92		91		70-130	1		30
Dibromomethane	96		94		70-130	2		30
Styrene	98		97		70-130	1		30
Dichlorodifluoromethane	59		55		30-146	7		30
Acetone	112		106		54-140	6		30
Carbon disulfide	88		84		59-130	5		30
2-Butanone	104		94		70-130	10		30
Vinyl acetate	116		112		70-130	4		30
4-Methyl-2-pentanone	99		97		70-130	2		30
1,2,3-Trichloropropane	105		104		68-130	1		30
2-Hexanone	111		100		70-130	10		30
Bromochloromethane	91		89		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,11,14 Batch: WG1194326-8 WG1194326-9									
2,2-Dichloropropane	103		99		70-130		4		30
1,2-Dibromoethane	100		101		70-130		1		30
1,3-Dichloropropane	105		104		69-130		1		30
1,1,1,2-Tetrachloroethane	99		100		70-130		1		30
Bromobenzene	100		97		70-130		3		30
n-Butylbenzene	115		113		70-130		2		30
sec-Butylbenzene	104		105		70-130		1		30
tert-Butylbenzene	111		108		70-130		3		30
o-Chlorotoluene	108		105		70-130		3		30
p-Chlorotoluene	110		107		70-130		3		30
1,2-Dibromo-3-chloropropane	96		97		68-130		1		30
Hexachlorobutadiene	102		98		67-130		4		30
Isopropylbenzene	113		109		70-130		4		30
p-Isopropyltoluene	111		111		70-130		0		30
Naphthalene	99		99		70-130		0		30
Acrylonitrile	94		89		70-130		5		30
n-Propylbenzene	112		108		70-130		4		30
1,2,3-Trichlorobenzene	99		98		70-130		1		30
1,2,4-Trichlorobenzene	101		101		70-130		0		30
1,3,5-Trimethylbenzene	111		107		70-130		4		30
1,2,4-Trimethylbenzene	113		110		70-130		3		30
1,4-Dioxane	108		106		65-136		2		30
p-Diethylbenzene	109		107		70-130		2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852926

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,11,14 Batch: WG1194326-8 WG1194326-9								
p-Ethyltoluene	107		104		70-130	3		30
1,2,4,5-Tetramethylbenzene	102		102		70-130	0		30
Ethyl ether	77		78		67-130	1		30
trans-1,4-Dichloro-2-butene	101		106		70-130	5		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	110		108		70-130
Toluene-d8	107		107		70-130
4-Bromofluorobenzene	110		107		70-130
Dibromofluoromethane	99		99		70-130

SEMIVOLATILES

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-01
 Client ID: RB05_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:35
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/30/18 08:28
 Analyst: RC
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	140		ug/kg	140	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	33.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	2800		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	24.	1
Naphthalene	160	J	ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	150	J	ug/kg	180	63.	1
Butyl benzyl phthalate	57	J	ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	62.	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-01

Date Collected: 12/21/18 09:35

Client ID: RB05_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	1400		ug/kg	110	20.	1
Benzo(a)pyrene	1700		ug/kg	140	44.	1
Benzo(b)fluoranthene	2300		ug/kg	110	31.	1
Benzo(k)fluoranthene	740		ug/kg	110	29.	1
Chrysene	1500		ug/kg	110	19.	1
Acenaphthylene	880		ug/kg	140	28.	1
Anthracene	640		ug/kg	110	35.	1
Benzo(ghi)perylene	1300		ug/kg	140	21.	1
Fluorene	150	J	ug/kg	180	18.	1
Phenanthrene	1300		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	260		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	1300		ug/kg	140	25.	1
Pyrene	2400		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	42.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	75.	1
Dibenzofuran	99	J	ug/kg	180	17.	1
2-Methylnaphthalene	83	J	ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	60.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	250	74.	1
2,4-Dinitrophenol	ND		ug/kg	870	85.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	87.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	35	J	ug/kg	260	28.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-01
Client ID: RB05_0-2
Sample Location: BRONX, NY

Date Collected: 12/21/18 09:35
Date Received: 12/21/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	590	180	1
Benzyl Alcohol	ND		ug/kg	180	56.	1
Carbazole	250		ug/kg	180	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		25-120
Phenol-d6	77		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	93		10-136
4-Terphenyl-d14	54		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-02
Client ID: RB05_8-10
Sample Location: BRONX, NY

Date Collected: 12/21/18 09:40
Date Received: 12/21/18
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/30/18 04:13
Analyst: RC
Percent Solids: 90%

Extraction Method: EPA 3546
Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	61	J	ug/kg	140	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	31.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	1100		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	48	J	ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	87	J	ug/kg	180	62.	1
Butyl benzyl phthalate	ND		ug/kg	180	45.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	61.	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-02

Date Collected: 12/21/18 09:40

Client ID: RB05_8-10

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	420		ug/kg	110	20.	1
Benzo(a)pyrene	490		ug/kg	140	44.	1
Benzo(b)fluoranthene	590		ug/kg	110	30.	1
Benzo(k)fluoranthene	200		ug/kg	110	29.	1
Chrysene	400		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	130		ug/kg	110	35.	1
Benzo(ghi)perylene	310		ug/kg	140	21.	1
Fluorene	49	J	ug/kg	180	18.	1
Phenanthrene	500		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	53	J	ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	310		ug/kg	140	25.	1
Pyrene	950		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	42.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	75.	1
Dibenzofuran	28	J	ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	59.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	250	74.	1
2,4-Dinitrophenol	ND		ug/kg	860	84.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	86.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-02
 Client ID: RB05_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	34.	1
Benzoic Acid	ND		ug/kg	580	180	1
Benzyl Alcohol	ND		ug/kg	180	55.	1
Carbazole	37	J	ug/kg	180	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		25-120
Phenol-d6	66		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	66		30-120
2,4,6-Tribromophenol	71		10-136
4-Terphenyl-d14	57		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-03
 Client ID: RB05_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/30/18 04:39
 Analyst: RC
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	100	J	ug/kg	140	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	1100		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	95	J	ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	62.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	61.	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-03

Date Collected: 12/21/18 09:50

Client ID: RB05_13-15

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	530		ug/kg	110	20.	1
Benzo(a)pyrene	620		ug/kg	140	44.	1
Benzo(b)fluoranthene	680		ug/kg	110	30.	1
Benzo(k)fluoranthene	200		ug/kg	110	29.	1
Chrysene	480		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	130		ug/kg	110	35.	1
Benzo(ghi)perylene	380		ug/kg	140	21.	1
Fluorene	62	J	ug/kg	180	18.	1
Phenanthrene	470		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	66	J	ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	380		ug/kg	140	25.	1
Pyrene	1000		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	42.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	75.	1
Dibenzofuran	37	J	ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	60.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	250	74.	1
2,4-Dinitrophenol	ND		ug/kg	870	84.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	87.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-03
 Client ID: RB05_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	580	180	1
Benzyl Alcohol	ND		ug/kg	180	55.	1
Carbazole	36	J	ug/kg	180	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	98		10-136
4-Terphenyl-d14	49		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-04
 Client ID: RB05_19-21
 Sample Location: BRONX, NY

Date Collected: 12/21/18 10:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/30/18 05:04
 Analyst: RC
 Percent Solids: 75%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	310		ug/kg	170	22.	1
1,2,4-Trichlorobenzene	ND		ug/kg	220	25.	1
Hexachlorobenzene	ND		ug/kg	130	24.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	29.	1
2-Chloronaphthalene	ND		ug/kg	220	21.	1
1,2-Dichlorobenzene	ND		ug/kg	220	39.	1
1,3-Dichlorobenzene	ND		ug/kg	220	37.	1
1,4-Dichlorobenzene	ND		ug/kg	220	38.	1
3,3'-Dichlorobenzidine	ND		ug/kg	220	57.	1
2,4-Dinitrotoluene	ND		ug/kg	220	43.	1
2,6-Dinitrotoluene	ND		ug/kg	220	37.	1
Fluoranthene	1800		ug/kg	130	25.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	220	23.	1
4-Bromophenyl phenyl ether	ND		ug/kg	220	33.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	260	37.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	22.	1
Hexachlorobutadiene	ND		ug/kg	220	32.	1
Hexachlorocyclopentadiene	ND		ug/kg	620	200	1
Hexachloroethane	ND		ug/kg	170	35.	1
Isophorone	ND		ug/kg	190	28.	1
Naphthalene	150	J	ug/kg	220	26.	1
Nitrobenzene	ND		ug/kg	190	32.	1
NDPA/DPA	ND		ug/kg	170	24.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	220	33.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	220	75.	1
Butyl benzyl phthalate	ND		ug/kg	220	54.	1
Di-n-butylphthalate	ND		ug/kg	220	41.	1
Di-n-octylphthalate	ND		ug/kg	220	73.	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-04

Date Collected: 12/21/18 10:00

Client ID: RB05_19-21

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	220	20.	1
Dimethyl phthalate	ND		ug/kg	220	45.	1
Benzo(a)anthracene	1100		ug/kg	130	24.	1
Benzo(a)pyrene	1100		ug/kg	170	53.	1
Benzo(b)fluoranthene	1200		ug/kg	130	36.	1
Benzo(k)fluoranthene	360		ug/kg	130	34.	1
Chrysene	930		ug/kg	130	22.	1
Acenaphthylene	52	J	ug/kg	170	33.	1
Anthracene	120	J	ug/kg	130	42.	1
Benzo(ghi)perylene	740		ug/kg	170	25.	1
Fluorene	47	J	ug/kg	220	21.	1
Phenanthrene	250		ug/kg	130	26.	1
Dibenzo(a,h)anthracene	130		ug/kg	130	25.	1
Indeno(1,2,3-cd)pyrene	650		ug/kg	170	30.	1
Pyrene	1700		ug/kg	130	21.	1
Biphenyl	ND		ug/kg	490	50.	1
4-Chloroaniline	ND		ug/kg	220	39.	1
2-Nitroaniline	ND		ug/kg	220	42.	1
3-Nitroaniline	ND		ug/kg	220	41.	1
4-Nitroaniline	ND		ug/kg	220	89.	1
Dibenzofuran	43	J	ug/kg	220	20.	1
2-Methylnaphthalene	31	J	ug/kg	260	26.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	220	22.	1
Acetophenone	ND		ug/kg	220	27.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	41.	1
p-Chloro-m-cresol	ND		ug/kg	220	32.	1
2-Chlorophenol	ND		ug/kg	220	26.	1
2,4-Dichlorophenol	ND		ug/kg	190	35.	1
2,4-Dimethylphenol	ND		ug/kg	220	71.	1
2-Nitrophenol	ND		ug/kg	470	81.	1
4-Nitrophenol	ND		ug/kg	300	88.	1
2,4-Dinitrophenol	ND		ug/kg	1000	100	1
4,6-Dinitro-o-cresol	ND		ug/kg	560	100	1
Pentachlorophenol	ND		ug/kg	170	47.	1
Phenol	ND		ug/kg	220	32.	1
2-Methylphenol	ND		ug/kg	220	33.	1
3-Methylphenol/4-Methylphenol	120	J	ug/kg	310	34.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-04
Client ID: RB05_19-21
Sample Location: BRONX, NY

Date Collected: 12/21/18 10:00
Date Received: 12/21/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	220	41.	1
Benzoic Acid	ND		ug/kg	700	220	1
Benzyl Alcohol	ND		ug/kg	220	66.	1
Carbazole	40	J	ug/kg	220	21.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	78		25-120
Phenol-d6	83		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	79		30-120
2,4,6-Tribromophenol	102		10-136
4-Terphenyl-d14	58		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-05
 Client ID: RB06_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/30/18 05:56
 Analyst: RC
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	52	J	ug/kg	150	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	21.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	25.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	32.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	4200		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	110	J	ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	65.	1
Butyl benzyl phthalate	ND		ug/kg	190	47.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	64.	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-05

Date Collected: 12/21/18 12:30

Client ID: RB06_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	17.	1
Dimethyl phthalate	ND		ug/kg	190	39.	1
Benzo(a)anthracene	2400		ug/kg	110	21.	1
Benzo(a)pyrene	2600		ug/kg	150	46.	1
Benzo(b)fluoranthene	3800		ug/kg	110	32.	1
Benzo(k)fluoranthene	1100		ug/kg	110	30.	1
Chrysene	2400		ug/kg	110	20.	1
Acenaphthylene	1500		ug/kg	150	29.	1
Anthracene	700		ug/kg	110	37.	1
Benzo(ghi)perylene	2000		ug/kg	150	22.	1
Fluorene	97	J	ug/kg	190	18.	1
Phenanthrene	1400		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	400		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	2000		ug/kg	150	26.	1
Pyrene	3700		ug/kg	110	19.	1
Biphenyl	ND		ug/kg	430	44.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	36.	1
3-Nitroaniline	ND		ug/kg	190	35.	1
4-Nitroaniline	ND		ug/kg	190	78.	1
Dibenzofuran	51	J	ug/kg	190	18.	1
2-Methylnaphthalene	34	J	ug/kg	220	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	62.	1
2-Nitrophenol	ND		ug/kg	400	70.	1
4-Nitrophenol	ND		ug/kg	260	76.	1
2,4-Dinitrophenol	ND		ug/kg	900	87.	1
4,6-Dinitro-o-cresol	ND		ug/kg	490	90.	1
Pentachlorophenol	ND		ug/kg	150	41.	1
Phenol	ND		ug/kg	190	28.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	49	J	ug/kg	270	29.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-05
 Client ID: RB06_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Benzoic Acid	ND		ug/kg	610	190	1
Benzyl Alcohol	ND		ug/kg	190	57.	1
Carbazole	240		ug/kg	190	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		25-120
Phenol-d6	76		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	95		10-136
4-Terphenyl-d14	55		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-06
 Client ID: RB06_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/30/18 06:21
 Analyst: RC
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	96	J	ug/kg	150	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	33.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	49.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	6300		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	160	24.	1
Naphthalene	280		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	63.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	35.	1
Di-n-octylphthalate	ND		ug/kg	180	62.	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-06

Date Collected: 12/21/18 12:40

Client ID: RB06_8-10

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	3300		ug/kg	110	20.	1
Benzo(a)pyrene	3500		ug/kg	150	45.	1
Benzo(b)fluoranthene	5000		ug/kg	110	31.	1
Benzo(k)fluoranthene	1300		ug/kg	110	29.	1
Chrysene	3200		ug/kg	110	19.	1
Acenaphthylene	2400		ug/kg	150	28.	1
Anthracene	1200		ug/kg	110	36.	1
Benzo(ghi)perylene	2900		ug/kg	150	22.	1
Fluorene	200		ug/kg	180	18.	1
Phenanthrene	3100		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	630		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	2900		ug/kg	150	25.	1
Pyrene	5100		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	42.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	76.	1
Dibenzofuran	190		ug/kg	180	17.	1
2-Methylnaphthalene	87	J	ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	22.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	60.	1
2-Nitrophenol	ND		ug/kg	400	69.	1
4-Nitrophenol	ND		ug/kg	260	75.	1
2,4-Dinitrophenol	ND		ug/kg	880	85.	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	88.	1
Pentachlorophenol	150		ug/kg	150	40.	1
Phenol	43	J	ug/kg	180	28.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	82	J	ug/kg	260	29.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-06
 Client ID: RB06_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	590	180	1
Benzyl Alcohol	ND		ug/kg	180	56.	1
Carbazole	420		ug/kg	180	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	26		25-120
Phenol-d6	63		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	16		10-136
4-Terphenyl-d14	54		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-07
 Client ID: RB06_10-12
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/30/18 02:06
 Analyst: RC
 Percent Solids: 69%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	190	25.	1
1,2,4-Trichlorobenzene	ND		ug/kg	240	27.	1
Hexachlorobenzene	ND		ug/kg	140	27.	1
Bis(2-chloroethyl)ether	ND		ug/kg	210	32.	1
2-Chloronaphthalene	ND		ug/kg	240	24.	1
1,2-Dichlorobenzene	ND		ug/kg	240	43.	1
1,3-Dichlorobenzene	ND		ug/kg	240	41.	1
1,4-Dichlorobenzene	ND		ug/kg	240	42.	1
3,3'-Dichlorobenzidine	ND		ug/kg	240	63.	1
2,4-Dinitrotoluene	ND		ug/kg	240	48.	1
2,6-Dinitrotoluene	ND		ug/kg	240	41.	1
Fluoranthene	ND		ug/kg	140	27.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	240	26.	1
4-Bromophenyl phenyl ether	ND		ug/kg	240	36.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	290	41.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	260	24.	1
Hexachlorobutadiene	ND		ug/kg	240	35.	1
Hexachlorocyclopentadiene	ND		ug/kg	680	220	1
Hexachloroethane	ND		ug/kg	190	38.	1
Isophorone	ND		ug/kg	210	31.	1
Naphthalene	58	J	ug/kg	240	29.	1
Nitrobenzene	ND		ug/kg	210	35.	1
NDPA/DPA	ND		ug/kg	190	27.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	240	37.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	240	82.	1
Butyl benzyl phthalate	ND		ug/kg	240	60.	1
Di-n-butylphthalate	ND		ug/kg	240	45.	1
Di-n-octylphthalate	ND		ug/kg	240	81.	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-07

Date Collected: 12/21/18 12:50

Client ID: RB06_10-12

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	240	22.	1
Dimethyl phthalate	ND		ug/kg	240	50.	1
Benzo(a)anthracene	ND		ug/kg	140	27.	1
Benzo(a)pyrene	ND		ug/kg	190	58.	1
Benzo(b)fluoranthene	ND		ug/kg	140	40.	1
Benzo(k)fluoranthene	ND		ug/kg	140	38.	1
Chrysene	ND		ug/kg	140	25.	1
Acenaphthylene	ND		ug/kg	190	37.	1
Anthracene	ND		ug/kg	140	46.	1
Benzo(ghi)perylene	ND		ug/kg	190	28.	1
Fluorene	ND		ug/kg	240	23.	1
Phenanthrene	ND		ug/kg	140	29.	1
Dibenzo(a,h)anthracene	ND		ug/kg	140	28.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	190	33.	1
Pyrene	ND		ug/kg	140	24.	1
Biphenyl	ND		ug/kg	540	55.	1
4-Chloroaniline	ND		ug/kg	240	43.	1
2-Nitroaniline	ND		ug/kg	240	46.	1
3-Nitroaniline	ND		ug/kg	240	45.	1
4-Nitroaniline	ND		ug/kg	240	99.	1
Dibenzofuran	ND		ug/kg	240	22.	1
2-Methylnaphthalene	ND		ug/kg	290	29.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	240	25.	1
Acetophenone	ND		ug/kg	240	30.	1
2,4,6-Trichlorophenol	ND		ug/kg	140	45.	1
p-Chloro-m-cresol	ND		ug/kg	240	36.	1
2-Chlorophenol	ND		ug/kg	240	28.	1
2,4-Dichlorophenol	ND		ug/kg	210	38.	1
2,4-Dimethylphenol	ND		ug/kg	240	79.	1
2-Nitrophenol	ND		ug/kg	520	90.	1
4-Nitrophenol	ND		ug/kg	330	97.	1
2,4-Dinitrophenol	ND		ug/kg	1100	110	1
4,6-Dinitro-o-cresol	ND		ug/kg	620	110	1
Pentachlorophenol	ND		ug/kg	190	52.	1
Phenol	ND		ug/kg	240	36.	1
2-Methylphenol	ND		ug/kg	240	37.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	340	37.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-07
 Client ID: RB06_10-12
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	240	46.	1
Benzoic Acid	ND		ug/kg	770	240	1
Benzyl Alcohol	ND		ug/kg	240	73.	1
Carbazole	ND		ug/kg	240	23.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		25-120
Phenol-d6	68		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	70		30-120
2,4,6-Tribromophenol	93		10-136
4-Terphenyl-d14	55		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-08
 Client ID: RB04_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/30/18 06:46
 Analyst: RC
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	80	J	ug/kg	150	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	33.	1
1,3-Dichlorobenzene	ND		ug/kg	180	32.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	49.	1
2,4-Dinitrotoluene	ND		ug/kg	180	37.	1
2,6-Dinitrotoluene	ND		ug/kg	180	32.	1
Fluoranthene	3200		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	180	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	530	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	140	J	ug/kg	180	23.	1
Nitrobenzene	ND		ug/kg	170	27.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	64.	1
Butyl benzyl phthalate	ND		ug/kg	180	47.	1
Di-n-butylphthalate	ND		ug/kg	180	35.	1
Di-n-octylphthalate	ND		ug/kg	180	63.	1

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-08

Date Collected: 12/21/18 13:30

Client ID: RB04_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	39.	1
Benzo(a)anthracene	1600		ug/kg	110	21.	1
Benzo(a)pyrene	1600		ug/kg	150	45.	1
Benzo(b)fluoranthene	2200		ug/kg	110	31.	1
Benzo(k)fluoranthene	790		ug/kg	110	30.	1
Chrysene	1600		ug/kg	110	19.	1
Acenaphthylene	640		ug/kg	150	29.	1
Anthracene	460		ug/kg	110	36.	1
Benzo(ghi)perylene	1100		ug/kg	150	22.	1
Fluorene	100	J	ug/kg	180	18.	1
Phenanthrene	1700		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	230		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	1100		ug/kg	150	26.	1
Pyrene	2700		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	43.	1
4-Chloroaniline	ND		ug/kg	180	34.	1
2-Nitroaniline	ND		ug/kg	180	36.	1
3-Nitroaniline	ND		ug/kg	180	35.	1
4-Nitroaniline	ND		ug/kg	180	77.	1
Dibenzofuran	78	J	ug/kg	180	18.	1
2-Methylnaphthalene	97	J	ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
p-Chloro-m-cresol	ND		ug/kg	180	28.	1
2-Chlorophenol	ND		ug/kg	180	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	180	61.	1
2-Nitrophenol	ND		ug/kg	400	70.	1
4-Nitrophenol	ND		ug/kg	260	76.	1
2,4-Dinitrophenol	ND		ug/kg	890	86.	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	89.	1
Pentachlorophenol	ND		ug/kg	150	41.	1
Phenol	ND		ug/kg	180	28.	1
2-Methylphenol	ND		ug/kg	180	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	29.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-08
 Client ID: RB04_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	36.	1
Benzoic Acid	ND		ug/kg	600	190	1
Benzyl Alcohol	ND		ug/kg	180	57.	1
Carbazole	180		ug/kg	180	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		25-120
Phenol-d6	81		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	77		30-120
2,4,6-Tribromophenol	98		10-136
4-Terphenyl-d14	63		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-09
 Client ID: RB04_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/30/18 03:48
 Analyst: RC
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	33.	1
1,3-Dichlorobenzene	ND		ug/kg	180	32.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	49.	1
2,4-Dinitrotoluene	ND		ug/kg	180	37.	1
2,6-Dinitrotoluene	ND		ug/kg	180	32.	1
Fluoranthene	42	J	ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	530	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	170	27.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	64.	1
Butyl benzyl phthalate	ND		ug/kg	180	47.	1
Di-n-butylphthalate	ND		ug/kg	180	35.	1
Di-n-octylphthalate	ND		ug/kg	180	63.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-09
 Client ID: RB04_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	39.	1
Benzo(a)anthracene	26	J	ug/kg	110	21.	1
Benzo(a)pyrene	ND		ug/kg	150	45.	1
Benzo(b)fluoranthene	43	J	ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	30.	1
Chrysene	25	J	ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	ND		ug/kg	110	36.	1
Benzo(ghi)perylene	32	J	ug/kg	150	22.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	24	J	ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	26.	1
Pyrene	48	J	ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	43.	1
4-Chloroaniline	ND		ug/kg	180	34.	1
2-Nitroaniline	ND		ug/kg	180	36.	1
3-Nitroaniline	ND		ug/kg	180	35.	1
4-Nitroaniline	ND		ug/kg	180	77.	1
Dibenzofuran	ND		ug/kg	180	18.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
p-Chloro-m-cresol	ND		ug/kg	180	28.	1
2-Chlorophenol	ND		ug/kg	180	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	180	61.	1
2-Nitrophenol	ND		ug/kg	400	70.	1
4-Nitrophenol	ND		ug/kg	260	76.	1
2,4-Dinitrophenol	ND		ug/kg	890	86.	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	89.	1
Pentachlorophenol	ND		ug/kg	150	41.	1
Phenol	ND		ug/kg	180	28.	1
2-Methylphenol	ND		ug/kg	180	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	29.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-09
Client ID: RB04_8-10
Sample Location: BRONX, NY

Date Collected: 12/21/18 13:40
Date Received: 12/21/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	600	190	1
Benzyl Alcohol	ND		ug/kg	180	57.	1
Carbazole	ND		ug/kg	180	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		25-120
Phenol-d6	67		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	75		30-120
2,4,6-Tribromophenol	80		10-136
4-Terphenyl-d14	62		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-10
 Client ID: RB04_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/30/18 05:30
 Analyst: RC
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	160		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	3200		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	570		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-10

Date Collected: 12/21/18 13:50

Client ID: RB04_13-15

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	1800		ug/kg	120	22.	1
Benzo(a)pyrene	1700		ug/kg	150	47.	1
Benzo(b)fluoranthene	2100		ug/kg	120	32.	1
Benzo(k)fluoranthene	560		ug/kg	120	31.	1
Chrysene	1500		ug/kg	120	20.	1
Acenaphthylene	110	J	ug/kg	150	30.	1
Anthracene	620		ug/kg	120	37.	1
Benzo(ghi)perylene	880		ug/kg	150	22.	1
Fluorene	180	J	ug/kg	190	19.	1
Phenanthrene	1600		ug/kg	120	23.	1
Dibenzo(a,h)anthracene	180		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	930		ug/kg	150	27.	1
Pyrene	3100		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	44.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	79.	1
Dibenzofuran	86	J	ug/kg	190	18.	1
2-Methylnaphthalene	54	J	ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	63.	1
2-Nitrophenol	ND		ug/kg	410	72.	1
4-Nitrophenol	ND		ug/kg	270	78.	1
2,4-Dinitrophenol	ND		ug/kg	920	89.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	92.	1
Pentachlorophenol	130	J	ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	30	J	ug/kg	280	30.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-10
 Client ID: RB04_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	620	190	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	62	J	ug/kg	190	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	73		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	95		10-136
4-Terphenyl-d14	55		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-11
 Client ID: SODUP01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 00:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/30/18 03:23
 Analyst: RC
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	20.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	31.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	55	J	ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	27.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	510	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	62.	1
Butyl benzyl phthalate	ND		ug/kg	180	45.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	61.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-11
 Client ID: SODUP01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 00:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	26	J	ug/kg	110	20.	1
Benzo(a)pyrene	ND		ug/kg	140	44.	1
Benzo(b)fluoranthene	35	J	ug/kg	110	30.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	27	J	ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	ND		ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	17.	1
Phenanthrene	28	J	ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	25.	1
Pyrene	51	J	ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	42.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	74.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	59.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	250	73.	1
2,4-Dinitrophenol	ND		ug/kg	860	84.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	86.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-11
 Client ID: SODUP01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 00:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	34.	1
Benzoic Acid	ND		ug/kg	580	180	1
Benzyl Alcohol	ND		ug/kg	180	55.	1
Carbazole	ND		ug/kg	180	17.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		25-120
Phenol-d6	74		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	77		30-120
2,4,6-Tribromophenol	81		10-136
4-Terphenyl-d14	81		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-13
 Client ID: SOFB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:45
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 12/31/18 16:52
 Analyst: ALS

Extraction Method: EPA 3510C
 Extraction Date: 12/27/18 02:06

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-13
 Client ID: SOFB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:45
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	49		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	73		15-120
2,4,6-Tribromophenol	43		10-120
4-Terphenyl-d14	68		41-149

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-13
 Client ID: SOFB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:45
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/03/19 22:26
 Analyst: CB

Extraction Method: EPA 3510C
 Extraction Date: 12/27/18 02:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-13
 Client ID: SOFB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:45
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		21-120
Phenol-d6	47		10-120
Nitrobenzene-d5	92		23-120
2-Fluorobiphenyl	85		15-120
2,4,6-Tribromophenol	58		10-120
4-Terphenyl-d14	86		41-149

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-14
 Client ID: RB04_18-20
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/30/18 07:12
 Analyst: RC
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	970		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	32.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	4800		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	1100		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	140	J	ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	64.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-14
 Client ID: RB04_18-20
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	2400		ug/kg	110	21.	1
Benzo(a)pyrene	2300		ug/kg	150	46.	1
Benzo(b)fluoranthene	2700		ug/kg	110	32.	1
Benzo(k)fluoranthene	900		ug/kg	110	30.	1
Chrysene	2000		ug/kg	110	20.	1
Acenaphthylene	89	J	ug/kg	150	29.	1
Anthracene	1800		ug/kg	110	37.	1
Benzo(ghi)perylene	1300		ug/kg	150	22.	1
Fluorene	870		ug/kg	190	18.	1
Phenanthrene	4600		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	260		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	1400		ug/kg	150	26.	1
Pyrene	4500		ug/kg	110	19.	1
Biphenyl	100	J	ug/kg	430	44.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	36.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	78.	1
Dibenzofuran	520		ug/kg	190	18.	1
2-Methylnaphthalene	270		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	62.	1
2-Nitrophenol	ND		ug/kg	410	71.	1
4-Nitrophenol	ND		ug/kg	260	77.	1
2,4-Dinitrophenol	ND		ug/kg	910	88.	1
4,6-Dinitro-o-cresol	ND		ug/kg	490	91.	1
Pentachlorophenol	180		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	28.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-14
 Client ID: RB04_18-20
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Benzoic Acid	ND		ug/kg	610	190	1
Benzyl Alcohol	ND		ug/kg	190	58.	1
Carbazole	440		ug/kg	190	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	76		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	92		10-136
4-Terphenyl-d14	54		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/30/18 00:16
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-11,14 Batch: WG1192583-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	22.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	26.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	42.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 12/30/18 00:16
 Analyst: RC

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-11,14 Batch: WG1192583-1					
Dimethyl phthalate	ND		ug/kg	160	35.
Benzo(a)anthracene	ND		ug/kg	99	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	69.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	25.
2-Chlorophenol	ND		ug/kg	160	20.
2,4-Dichlorophenol	ND		ug/kg	150	27.
2,4-Dimethylphenol	ND		ug/kg	160	55.
2-Nitrophenol	ND		ug/kg	360	62.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 12/30/18 00:16
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 12/24/18 01:26

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-11,14 Batch: WG1192583-1					
4-Nitrophenol	ND		ug/kg	230	68.
2,4-Dinitrophenol	ND		ug/kg	800	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	80.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Benzoic Acid	ND		ug/kg	540	170
Benzyl Alcohol	ND		ug/kg	160	51.
Carbazole	ND		ug/kg	160	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	83		25-120
Phenol-d6	84		10-120
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	87		30-120
2,4,6-Tribromophenol	82		10-136
4-Terphenyl-d14	85		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/31/18 14:16
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 12/26/18 20:32

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 13 Batch: WG1192882-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/31/18 14:16
Analyst: ALS

Extraction Method: EPA 3510C
Extraction Date: 12/26/18 20:32

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 13 Batch: WG1192882-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D
 Analytical Date: 12/31/18 14:16
 Analyst: ALS

Extraction Method: EPA 3510C
 Extraction Date: 12/26/18 20:32

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 13 Batch: WG1192882-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	45		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	73		15-120
2,4,6-Tribromophenol	39		10-120
4-Terphenyl-d14	73		41-149

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 01/03/19 18:56
Analyst: CB

Extraction Method: EPA 3510C
Extraction Date: 12/26/18 20:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 13 Batch: WG1192883-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	0.01	J	ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D-SIM
Analytical Date: 01/03/19 18:56
Analyst: CB

Extraction Method: EPA 3510C
Extraction Date: 12/26/18 20:34

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 13 Batch: WG1192883-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	44		21-120
Phenol-d6	45		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	80		15-120
2,4,6-Tribromophenol	49		10-120
4-Terphenyl-d14	89		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-11,14 Batch: WG1192583-2 WG1192583-3								
Acenaphthene	87		82		31-137	6		50
1,2,4-Trichlorobenzene	91		86		38-107	6		50
Hexachlorobenzene	91		84		40-140	8		50
Bis(2-chloroethyl)ether	88		82		40-140	7		50
2-Chloronaphthalene	96		92		40-140	4		50
1,2-Dichlorobenzene	87		83		40-140	5		50
1,3-Dichlorobenzene	86		82		40-140	5		50
1,4-Dichlorobenzene	85		83		28-104	2		50
3,3'-Dichlorobenzidine	84		87		40-140	4		50
2,4-Dinitrotoluene	110		104		40-132	6		50
2,6-Dinitrotoluene	110		102		40-140	8		50
Fluoranthene	98		96		40-140	2		50
4-Chlorophenyl phenyl ether	87		81		40-140	7		50
4-Bromophenyl phenyl ether	91		83		40-140	9		50
Bis(2-chloroisopropyl)ether	81		76		40-140	6		50
Bis(2-chloroethoxy)methane	91		82		40-117	10		50
Hexachlorobutadiene	86		81		40-140	6		50
Hexachlorocyclopentadiene	84		78		40-140	7		50
Hexachloroethane	85		82		40-140	4		50
Isophorone	89		83		40-140	7		50
Naphthalene	92		89		40-140	3		50
Nitrobenzene	94		88		40-140	7		50
NDPA/DPA	89		86		36-157	3		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-11,14 Batch: WG1192583-2 WG1192583-3								
n-Nitrosodi-n-propylamine	86		81		32-121	6		50
Bis(2-ethylhexyl)phthalate	115		113		40-140	2		50
Butyl benzyl phthalate	109		109		40-140	0		50
Di-n-butylphthalate	108		105		40-140	3		50
Di-n-octylphthalate	118		117		40-140	1		50
Diethyl phthalate	94		89		40-140	5		50
Dimethyl phthalate	97		91		40-140	6		50
Benzo(a)anthracene	91		88		40-140	3		50
Benzo(a)pyrene	106		105		40-140	1		50
Benzo(b)fluoranthene	110		100		40-140	10		50
Benzo(k)fluoranthene	97		104		40-140	7		50
Chrysene	98		96		40-140	2		50
Acenaphthylene	99		93		40-140	6		50
Anthracene	102		99		40-140	3		50
Benzo(ghi)perylene	101		97		40-140	4		50
Fluorene	94		88		40-140	7		50
Phenanthrene	98		94		40-140	4		50
Dibenzo(a,h)anthracene	98		94		40-140	4		50
Indeno(1,2,3-cd)pyrene	100		97		40-140	3		50
Pyrene	98		97		35-142	1		50
Biphenyl	99		94		54-104	5		50
4-Chloroaniline	83		81		40-140	2		50
2-Nitroaniline	115		111		47-134	4		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-11,14 Batch: WG1192583-2 WG1192583-3								
3-Nitroaniline	79		80		26-129	1		50
4-Nitroaniline	97		92		41-125	5		50
Dibenzofuran	93		88		40-140	6		50
2-Methylnaphthalene	93		88		40-140	6		50
1,2,4,5-Tetrachlorobenzene	99		92		40-117	7		50
Acetophenone	94		88		14-144	7		50
2,4,6-Trichlorophenol	105		102		30-130	3		50
p-Chloro-m-cresol	100		96		26-103	4		50
2-Chlorophenol	99		92		25-102	7		50
2,4-Dichlorophenol	104		100		30-130	4		50
2,4-Dimethylphenol	101		94		30-130	7		50
2-Nitrophenol	117		107		30-130	9		50
4-Nitrophenol	114		108		11-114	5		50
2,4-Dinitrophenol	108		106		4-130	2		50
4,6-Dinitro-o-cresol	107		104		10-130	3		50
Pentachlorophenol	109		103		17-109	6		50
Phenol	88		85		26-90	3		50
2-Methylphenol	97		92		30-130.	5		50
3-Methylphenol/4-Methylphenol	106		98		30-130	8		50
2,4,5-Trichlorophenol	105		101		30-130	4		50
Benzoic Acid	33		38		10-110	14		50
Benzyl Alcohol	95		89		40-140	7		50
Carbazole	102		100		54-128	2		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852926

Report Date: 01/04/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-11,14 Batch: WG1192583-2 WG1192583-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	98		91		25-120
Phenol-d6	98		91		10-120
Nitrobenzene-d5	99		91		23-120
2-Fluorobiphenyl	95		92		30-120
2,4,6-Tribromophenol	101		91		10-136
4-Terphenyl-d14	89		85		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1192882-2 WG1192882-3								
Acenaphthene	72		72		37-111	0		30
1,2,4-Trichlorobenzene	73		76		39-98	4		30
Hexachlorobenzene	84		83		40-140	1		30
Bis(2-chloroethyl)ether	79		83		40-140	5		30
2-Chloronaphthalene	77		76		40-140	1		30
1,2-Dichlorobenzene	71		73		40-140	3		30
1,3-Dichlorobenzene	70		71		40-140	1		30
1,4-Dichlorobenzene	69		71		36-97	3		30
3,3'-Dichlorobenzidine	29	Q	43		40-140	39	Q	30
2,4-Dinitrotoluene	78		76		48-143	3		30
2,6-Dinitrotoluene	79		77		40-140	3		30
Fluoranthene	76		74		40-140	3		30
4-Chlorophenyl phenyl ether	76		74		40-140	3		30
4-Bromophenyl phenyl ether	85		81		40-140	5		30
Bis(2-chloroisopropyl)ether	83		89		40-140	7		30
Bis(2-chloroethoxy)methane	77		83		40-140	8		30
Hexachlorobutadiene	78		75		40-140	4		30
Hexachlorocyclopentadiene	75		74		40-140	1		30
Hexachloroethane	72		72		40-140	0		30
Isophorone	76		81		40-140	6		30
Naphthalene	73		74		40-140	1		30
Nitrobenzene	76		81		40-140	6		30
NDPA/DPA	70		69		40-140	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1192882-2 WG1192882-3								
n-Nitrosodi-n-propylamine	79		83		29-132			5
Bis(2-ethylhexyl)phthalate	69		70		40-140			1
Butyl benzyl phthalate	63		62		40-140			2
Di-n-butylphthalate	66		66		40-140			0
Di-n-octylphthalate	62		63		40-140			2
Diethyl phthalate	73		72		40-140			1
Dimethyl phthalate	76		75		40-140			1
Benzo(a)anthracene	71		72		40-140			1
Benzo(a)pyrene	84		82		40-140			2
Benzo(b)fluoranthene	80		82		40-140			2
Benzo(k)fluoranthene	86		81		40-140			6
Chrysene	75		76		40-140			1
Acenaphthylene	76		76		45-123			0
Anthracene	74		73		40-140			1
Benzo(ghi)perylene	79		78		40-140			1
Fluorene	74		74		40-140			0
Phenanthrene	72		72		40-140			0
Dibenzo(a,h)anthracene	76		76		40-140			0
Indeno(1,2,3-cd)pyrene	71		72		40-140			1
Pyrene	74		72		26-127			3
Biphenyl	76		76		40-140			0
4-Chloroaniline	44		51		40-140			15
2-Nitroaniline	75		73		52-143			3

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1192882-2 WG1192882-3								
3-Nitroaniline	51		58		25-145	13		30
4-Nitroaniline	61		58		51-143	5		30
Dibenzofuran	74		74		40-140	0		30
2-Methylnaphthalene	76		76		40-140	0		30
1,2,4,5-Tetrachlorobenzene	78		79		2-134	1		30
Acetophenone	76		82		39-129	8		30
2,4,6-Trichlorophenol	75		72		30-130	4		30
p-Chloro-m-cresol	75		75		23-97	0		30
2-Chlorophenol	71		76		27-123	7		30
2,4-Dichlorophenol	74		75		30-130	1		30
2,4-Dimethylphenol	30		29	Q	30-130	3		30
2-Nitrophenol	72		77		30-130	7		30
4-Nitrophenol	78		73		10-80	7		30
2,4-Dinitrophenol	84		84		20-130	0		30
4,6-Dinitro-o-cresol	82		80		20-164	2		30
Pentachlorophenol	82		72		9-103	13		30
Phenol	60		63		12-110	5		30
2-Methylphenol	64		65		30-130	2		30
3-Methylphenol/4-Methylphenol	70		72		30-130	3		30
2,4,5-Trichlorophenol	77		78		30-130	1		30
Benzoic Acid	55		62		10-164	12		30
Benzyl Alcohol	69		76		26-116	10		30
Carbazole	70		69		55-144	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852926

Report Date: 01/04/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1192882-2 WG1192882-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	65		71		21-120
Phenol-d6	55		60		10-120
Nitrobenzene-d5	74		80		23-120
2-Fluorobiphenyl	73		73		15-120
2,4,6-Tribromophenol	80		76		10-120
4-Terphenyl-d14	66		65		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 13 Batch: WG1192883-2 WG1192883-3								
Acenaphthene	82		72		40-140	13		40
2-Chloronaphthalene	76		69		40-140	10		40
Fluoranthene	87		79		40-140	10		40
Hexachlorobutadiene	68		68		40-140	0		40
Naphthalene	74		67		40-140	10		40
Benzo(a)anthracene	89		79		40-140	12		40
Benzo(a)pyrene	96		85		40-140	12		40
Benzo(b)fluoranthene	92		82		40-140	11		40
Benzo(k)fluoranthene	98		86		40-140	13		40
Chrysene	83		74		40-140	11		40
Acenaphthylene	85		75		40-140	13		40
Anthracene	86		77		40-140	11		40
Benzo(ghi)perylene	82		76		40-140	8		40
Fluorene	86		76		40-140	12		40
Phenanthrene	81		72		40-140	12		40
Dibenzo(a,h)anthracene	88		82		40-140	7		40
Indeno(1,2,3-cd)pyrene	88		81		40-140	8		40
Pyrene	87		79		40-140	10		40
2-Methylnaphthalene	77		69		40-140	11		40
Pentachlorophenol	89		82		40-140	8		40
Hexachlorobenzene	82		75		40-140	9		40
Hexachloroethane	66		67		40-140	2		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 13 Batch: WG1192883-2 WG1192883-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	57		53		21-120
Phenol-d6	54		48		10-120
Nitrobenzene-d5	89		78		23-120
2-Fluorobiphenyl	75		69		15-120
2,4,6-Tribromophenol	60		63		10-120
4-Terphenyl-d14	80		73		41-149

PCBS

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-01
 Client ID: RB05_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:35
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/28/18 18:52
 Analyst: HT
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 00:16
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/24/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.4	3.14	1	A
Aroclor 1221	ND		ug/kg	35.4	3.55	1	A
Aroclor 1232	ND		ug/kg	35.4	7.50	1	A
Aroclor 1242	ND		ug/kg	35.4	4.77	1	A
Aroclor 1248	ND		ug/kg	35.4	5.31	1	A
Aroclor 1254	ND		ug/kg	35.4	3.87	1	A
Aroclor 1260	57.7		ug/kg	35.4	6.54	1	B
Aroclor 1262	ND		ug/kg	35.4	4.49	1	A
Aroclor 1268	ND		ug/kg	35.4	3.67	1	A
PCBs, Total	57.7		ug/kg	35.4	3.14	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	106		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-02
 Client ID: RB05_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/28/18 19:05
 Analyst: HT
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 00:16
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/24/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.8	3.27	1	A
Aroclor 1221	ND		ug/kg	36.8	3.69	1	A
Aroclor 1232	ND		ug/kg	36.8	7.80	1	A
Aroclor 1242	ND		ug/kg	36.8	4.96	1	A
Aroclor 1248	ND		ug/kg	36.8	5.52	1	A
Aroclor 1254	ND		ug/kg	36.8	4.03	1	A
Aroclor 1260	ND		ug/kg	36.8	6.80	1	A
Aroclor 1262	ND		ug/kg	36.8	4.67	1	A
Aroclor 1268	ND		ug/kg	36.8	3.81	1	A
PCBs, Total	ND		ug/kg	36.8	3.27	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	77		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-03
 Client ID: RB05_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/28/18 20:48
 Analyst: HT
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 00:16
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/24/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.5	3.24	1	A
Aroclor 1221	ND		ug/kg	36.5	3.65	1	A
Aroclor 1232	ND		ug/kg	36.5	7.73	1	A
Aroclor 1242	ND		ug/kg	36.5	4.92	1	A
Aroclor 1248	ND		ug/kg	36.5	5.47	1	A
Aroclor 1254	ND		ug/kg	36.5	3.99	1	A
Aroclor 1260	ND		ug/kg	36.5	6.74	1	A
Aroclor 1262	ND		ug/kg	36.5	4.63	1	A
Aroclor 1268	ND		ug/kg	36.5	3.78	1	A
PCBs, Total	ND		ug/kg	36.5	3.24	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	76		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-04
 Client ID: RB05_19-21
 Sample Location: BRONX, NY

Date Collected: 12/21/18 10:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/28/18 21:01
 Analyst: HT
 Percent Solids: 75%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 00:16
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/24/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	42.7	3.79	1	A
Aroclor 1221	ND		ug/kg	42.7	4.28	1	A
Aroclor 1232	ND		ug/kg	42.7	9.05	1	A
Aroclor 1242	ND		ug/kg	42.7	5.75	1	A
Aroclor 1248	ND		ug/kg	42.7	6.40	1	A
Aroclor 1254	ND		ug/kg	42.7	4.67	1	A
Aroclor 1260	ND		ug/kg	42.7	7.89	1	A
Aroclor 1262	ND		ug/kg	42.7	5.42	1	A
Aroclor 1268	ND		ug/kg	42.7	4.42	1	A
PCBs, Total	ND		ug/kg	42.7	3.79	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	35		30-150	A
2,4,5,6-Tetrachloro-m-xylene	61		30-150	B
Decachlorobiphenyl	44		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-05
 Client ID: RB06_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/28/18 21:14
 Analyst: HT
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 00:16
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/24/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.5	3.24	1	A
Aroclor 1221	ND		ug/kg	36.5	3.66	1	A
Aroclor 1232	ND		ug/kg	36.5	7.75	1	A
Aroclor 1242	ND		ug/kg	36.5	4.92	1	A
Aroclor 1248	ND		ug/kg	36.5	5.48	1	A
Aroclor 1254	ND		ug/kg	36.5	4.00	1	A
Aroclor 1260	ND		ug/kg	36.5	6.75	1	A
Aroclor 1262	ND		ug/kg	36.5	4.64	1	A
Aroclor 1268	13.1	J	ug/kg	36.5	3.78	1	A
PCBs, Total	13.1	J	ug/kg	36.5	3.24	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	80		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	100		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-06
 Client ID: RB06_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/28/18 21:27
 Analyst: HT
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 00:16
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/24/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.2	3.22	1	A
Aroclor 1221	ND		ug/kg	36.2	3.63	1	A
Aroclor 1232	ND		ug/kg	36.2	7.68	1	A
Aroclor 1242	ND		ug/kg	36.2	4.88	1	A
Aroclor 1248	ND		ug/kg	36.2	5.44	1	A
Aroclor 1254	ND		ug/kg	36.2	3.96	1	A
Aroclor 1260	ND		ug/kg	36.2	6.70	1	A
Aroclor 1262	ND		ug/kg	36.2	4.60	1	A
Aroclor 1268	13.0	J	ug/kg	36.2	3.75	1	B
PCBs, Total	13.0	J	ug/kg	36.2	3.22	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	A
Decachlorobiphenyl	96		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	125		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-07
 Client ID: RB06_10-12
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/28/18 21:40
 Analyst: HT
 Percent Solids: 69%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 00:16
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/24/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	47.9	4.25	1	A
Aroclor 1221	ND		ug/kg	47.9	4.80	1	A
Aroclor 1232	ND		ug/kg	47.9	10.2	1	A
Aroclor 1242	ND		ug/kg	47.9	6.46	1	A
Aroclor 1248	ND		ug/kg	47.9	7.18	1	A
Aroclor 1254	ND		ug/kg	47.9	5.24	1	A
Aroclor 1260	ND		ug/kg	47.9	8.85	1	A
Aroclor 1262	ND		ug/kg	47.9	6.08	1	A
Aroclor 1268	ND		ug/kg	47.9	4.96	1	A
PCBs, Total	ND		ug/kg	47.9	4.25	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	75		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-08
 Client ID: RB04_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/28/18 21:53
 Analyst: HT
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 00:16
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/24/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.8	3.27	1	A
Aroclor 1221	ND		ug/kg	36.8	3.69	1	A
Aroclor 1232	ND		ug/kg	36.8	7.81	1	A
Aroclor 1242	ND		ug/kg	36.8	4.96	1	A
Aroclor 1248	ND		ug/kg	36.8	5.52	1	A
Aroclor 1254	ND		ug/kg	36.8	4.03	1	A
Aroclor 1260	48.7	P	ug/kg	36.8	6.80	1	B
Aroclor 1262	ND		ug/kg	36.8	4.68	1	A
Aroclor 1268	17.5	J	ug/kg	36.8	3.82	1	A
PCBs, Total	66.2	J	ug/kg	36.8	3.27	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		30-150	B
Decachlorobiphenyl	103		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-09
 Client ID: RB04_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/28/18 22:06
 Analyst: HT
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 00:17
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/24/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.9	3.28	1	A
Aroclor 1221	ND		ug/kg	36.9	3.70	1	A
Aroclor 1232	ND		ug/kg	36.9	7.83	1	A
Aroclor 1242	ND		ug/kg	36.9	4.98	1	A
Aroclor 1248	ND		ug/kg	36.9	5.54	1	A
Aroclor 1254	ND		ug/kg	36.9	4.04	1	A
Aroclor 1260	ND		ug/kg	36.9	6.83	1	A
Aroclor 1262	ND		ug/kg	36.9	4.69	1	A
Aroclor 1268	ND		ug/kg	36.9	3.83	1	A
PCBs, Total	ND		ug/kg	36.9	3.28	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	93		30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	89		30-150	B
Decachlorobiphenyl	82		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-10
 Client ID: RB04_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/28/18 22:19
 Analyst: HT
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 00:17
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/24/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.5	3.33	1	A
Aroclor 1221	ND		ug/kg	37.5	3.75	1	A
Aroclor 1232	ND		ug/kg	37.5	7.94	1	A
Aroclor 1242	ND		ug/kg	37.5	5.05	1	A
Aroclor 1248	ND		ug/kg	37.5	5.62	1	A
Aroclor 1254	ND		ug/kg	37.5	4.10	1	A
Aroclor 1260	ND		ug/kg	37.5	6.92	1	A
Aroclor 1262	ND		ug/kg	37.5	4.76	1	A
Aroclor 1268	ND		ug/kg	37.5	3.88	1	A
PCBs, Total	ND		ug/kg	37.5	3.33	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	39		30-150	A
2,4,5,6-Tetrachloro-m-xylene	84		30-150	B
Decachlorobiphenyl	52		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-11
Client ID: SODUP01_122118
Sample Location: BRONX, NY

Date Collected: 12/21/18 00:00
Date Received: 12/21/18
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 12/28/18 22:32
Analyst: HT
Percent Solids: 91%

Extraction Method: EPA 3546
Extraction Date: 12/24/18 00:17
Cleanup Method: EPA 3665A
Cleanup Date: 12/24/18
Cleanup Method: EPA 3660B
Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.4	3.23	1	A
Aroclor 1221	ND		ug/kg	36.4	3.64	1	A
Aroclor 1232	ND		ug/kg	36.4	7.71	1	A
Aroclor 1242	ND		ug/kg	36.4	4.90	1	A
Aroclor 1248	ND		ug/kg	36.4	5.46	1	A
Aroclor 1254	ND		ug/kg	36.4	3.98	1	A
Aroclor 1260	ND		ug/kg	36.4	6.72	1	A
Aroclor 1262	ND		ug/kg	36.4	4.62	1	A
Aroclor 1268	ND		ug/kg	36.4	3.77	1	A
PCBs, Total	ND		ug/kg	36.4	3.23	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	A
Decachlorobiphenyl	65		30-150	A
2,4,5,6-Tetrachloro-m-xylene	93		30-150	B
Decachlorobiphenyl	82		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-13
 Client ID: SOFB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:45
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8082A
 Analytical Date: 12/30/18 17:38
 Analyst: WR

Extraction Method: EPA 3510C
 Extraction Date: 12/28/18 00:45
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/28/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	72		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	76		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-14
 Client ID: RB04_18-20
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/28/18 22:45
 Analyst: HT
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 00:17
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/24/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.7	3.26	1	A
Aroclor 1221	ND		ug/kg	36.7	3.68	1	A
Aroclor 1232	ND		ug/kg	36.7	7.78	1	A
Aroclor 1242	ND		ug/kg	36.7	4.95	1	A
Aroclor 1248	ND		ug/kg	36.7	5.51	1	A
Aroclor 1254	ND		ug/kg	36.7	4.02	1	A
Aroclor 1260	ND		ug/kg	36.7	6.78	1	A
Aroclor 1262	ND		ug/kg	36.7	4.66	1	A
Aroclor 1268	ND		ug/kg	36.7	3.80	1	A
PCBs, Total	ND		ug/kg	36.7	3.26	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	51		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	65		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8082A
 Analytical Date: 12/28/18 19:18
 Analyst: HT

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 00:16
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/24/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/24/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-11,14 Batch: WG1192580-1						
Aroclor 1016	ND		ug/kg	31.7	2.82	A
Aroclor 1221	ND		ug/kg	31.7	3.18	A
Aroclor 1232	ND		ug/kg	31.7	6.72	A
Aroclor 1242	ND		ug/kg	31.7	4.27	A
Aroclor 1248	ND		ug/kg	31.7	4.76	A
Aroclor 1254	ND		ug/kg	31.7	3.47	A
Aroclor 1260	ND		ug/kg	31.7	5.86	A
Aroclor 1262	ND		ug/kg	31.7	4.03	A
Aroclor 1268	ND		ug/kg	31.7	3.28	A
PCBs, Total	ND		ug/kg	31.7	2.82	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	99		30-150	A
Decachlorobiphenyl	67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	100		30-150	B
Decachlorobiphenyl	89		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8082A
Analytical Date: 12/30/18 17:51
Analyst: WR

Extraction Method: EPA 3510C
Extraction Date: 12/28/18 00:45
Cleanup Method: EPA 3665A
Cleanup Date: 12/28/18
Cleanup Method: EPA 3660B
Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 13 Batch: WG1193305-1						
Aroclor 1016	ND		ug/l	0.083	0.034	A
Aroclor 1221	ND		ug/l	0.083	0.067	A
Aroclor 1232	ND		ug/l	0.083	0.046	A
Aroclor 1242	ND		ug/l	0.083	0.039	A
Aroclor 1248	ND		ug/l	0.083	0.049	A
Aroclor 1254	ND		ug/l	0.083	0.039	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.035	A
Aroclor 1268	ND		ug/l	0.083	0.034	A
PCBs, Total	ND		ug/l	0.083	0.032	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	84		30-150	A
2,4,5,6-Tetrachloro-m-xylene	85		30-150	B
Decachlorobiphenyl	93		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-11,14 Batch: WG1192580-2 WG1192580-3									
Aroclor 1016	70		69		40-140	1		50	A
Aroclor 1260	55		56		40-140	2		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		91		30-150	A
Decachlorobiphenyl	61		59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	89		89		30-150	B
Decachlorobiphenyl	78		73		30-150	B



Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 13 Batch: WG1193305-2 WG1193305-3									
Aroclor 1016	75		72		40-140	3		50	A
Aroclor 1260	78		76		40-140	2		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		81		30-150	A
Decachlorobiphenyl	87		82		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		84		30-150	B
Decachlorobiphenyl	94		90		30-150	B



PESTICIDES

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-01
 Client ID: RB05_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:35
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/28/18 11:56
 Analyst: KEG
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.76	0.345	1	A
Lindane	ND		ug/kg	0.734	0.328	1	A
Alpha-BHC	ND		ug/kg	0.734	0.208	1	A
Beta-BHC	ND		ug/kg	1.76	0.668	1	A
Heptachlor	ND		ug/kg	0.880	0.395	1	A
Aldrin	ND		ug/kg	1.76	0.620	1	A
Heptachlor epoxide	3.61		ug/kg	3.30	0.990	1	A
Endrin	ND		ug/kg	0.734	0.301	1	A
Endrin aldehyde	ND		ug/kg	2.20	0.770	1	A
Endrin ketone	ND		ug/kg	1.76	0.453	1	A
Dieldrin	ND		ug/kg	1.10	0.550	1	A
4,4'-DDE	78.5		ug/kg	1.76	0.407	1	A
4,4'-DDD	ND		ug/kg	1.76	0.628	1	A
4,4'-DDT	232	E	ug/kg	3.30	1.42	1	B
Endosulfan I	ND		ug/kg	1.76	0.416	1	A
Endosulfan II	ND		ug/kg	1.76	0.588	1	A
Endosulfan sulfate	ND		ug/kg	0.734	0.349	1	A
Methoxychlor	ND		ug/kg	3.30	1.03	1	A
Toxaphene	ND		ug/kg	33.0	9.24	1	A
cis-Chlordane	10.6	IP	ug/kg	2.20	0.613	1	B
trans-Chlordane	11.8	IP	ug/kg	2.20	0.581	1	A
Chlordane	ND		ug/kg	14.3	5.83	1	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-01

Date Collected: 12/21/18 09:35

Client ID: RB05_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		30-150	B
Decachlorobiphenyl	84		30-150	B
2,4,5,6-Tetrachloro-m-xylene	91		30-150	A
Decachlorobiphenyl	92		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-01
 Client ID: RB05_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:35
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 17:04
 Analyst: KEG
 Percent Solids: 90%
 Methylation Date: 12/24/18 07:26

Extraction Method: EPA 8151A
 Extraction Date: 12/23/18 00:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	182	11.4	1	A
2,4,5-T	ND		ug/kg	182	5.63	1	A
2,4,5-TP (Silvex)	ND		ug/kg	182	4.83	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	107		30-150	A
DCAA	93		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-01 D
 Client ID: RB05_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:35
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/03/19 13:16
 Analyst: BM
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
4,4'-DDT	265		ug/kg	16.5	7.08	5	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-02
 Client ID: RB05_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/28/18 12:09
 Analyst: KEG
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.77	0.346	1	A
Lindane	ND		ug/kg	0.737	0.329	1	A
Alpha-BHC	ND		ug/kg	0.737	0.209	1	A
Beta-BHC	ND		ug/kg	1.77	0.671	1	A
Heptachlor	ND		ug/kg	0.884	0.396	1	A
Aldrin	ND		ug/kg	1.77	0.623	1	A
Heptachlor epoxide	ND		ug/kg	3.32	0.995	1	A
Endrin	ND		ug/kg	0.737	0.302	1	A
Endrin aldehyde	ND		ug/kg	2.21	0.774	1	A
Endrin ketone	ND		ug/kg	1.77	0.455	1	A
Dieldrin	ND		ug/kg	1.10	0.553	1	A
4,4'-DDE	ND		ug/kg	1.77	0.409	1	A
4,4'-DDD	ND		ug/kg	1.77	0.631	1	A
4,4'-DDT	ND		ug/kg	3.32	1.42	1	A
Endosulfan I	ND		ug/kg	1.77	0.418	1	A
Endosulfan II	ND		ug/kg	1.77	0.591	1	A
Endosulfan sulfate	ND		ug/kg	0.737	0.351	1	A
Methoxychlor	ND		ug/kg	3.32	1.03	1	A
Toxaphene	ND		ug/kg	33.2	9.29	1	A
cis-Chlordane	ND		ug/kg	2.21	0.616	1	A
trans-Chlordane	1.28	JIP	ug/kg	2.21	0.584	1	A
Chlordane	ND		ug/kg	14.4	5.86	1	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-02
 Client ID: RB05_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	B
Decachlorobiphenyl	62		30-150	B
2,4,5,6-Tetrachloro-m-xylene	87		30-150	A
Decachlorobiphenyl	60		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-02
 Client ID: RB05_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 17:23
 Analyst: KEG
 Percent Solids: 90%
 Methylation Date: 12/24/18 07:26

Extraction Method: EPA 8151A
 Extraction Date: 12/23/18 00:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	184	11.6	1	A
2,4,5-T	ND		ug/kg	184	5.71	1	A
2,4,5-TP (Silvex)	ND		ug/kg	184	4.90	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	115		30-150	A
DCAA	93		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-03
 Client ID: RB05_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 17:42
 Analyst: KEG
 Percent Solids: 89%
 Methylation Date: 12/24/18 07:26

Extraction Method: EPA 8151A
 Extraction Date: 12/23/18 00:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	186	11.7	1	A
2,4,5-T	ND		ug/kg	186	5.75	1	A
2,4,5-TP (Silvex)	ND		ug/kg	186	4.94	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	113		30-150	A
DCAA	91		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-03 D
 Client ID: RB05_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 09:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/03/19 13:54
 Analyst: KEG
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	35.1	6.87	20	A
Lindane	ND		ug/kg	14.6	6.53	20	A
Alpha-BHC	ND		ug/kg	14.6	4.15	20	A
Beta-BHC	ND		ug/kg	35.1	13.3	20	A
Heptachlor	ND		ug/kg	17.5	7.86	20	A
Aldrin	ND		ug/kg	35.1	12.3	20	A
Heptachlor epoxide	ND		ug/kg	65.7	19.7	20	A
Endrin	ND		ug/kg	14.6	5.99	20	A
Endrin aldehyde	ND		ug/kg	43.8	15.3	20	A
Endrin ketone	ND		ug/kg	35.1	9.03	20	A
Dieldrin	ND		ug/kg	21.9	11.0	20	A
4,4'-DDE	ND		ug/kg	35.1	8.11	20	A
4,4'-DDD	ND		ug/kg	35.1	12.5	20	A
4,4'-DDT	ND		ug/kg	65.7	28.2	20	A
Endosulfan I	ND		ug/kg	35.1	8.28	20	A
Endosulfan II	ND		ug/kg	35.1	11.7	20	A
Endosulfan sulfate	ND		ug/kg	14.6	6.95	20	A
Methoxychlor	ND		ug/kg	65.7	20.4	20	A
Toxaphene	ND		ug/kg	657	184.	20	A
cis-Chlordane	ND		ug/kg	43.8	12.2	20	A
trans-Chlordane	ND		ug/kg	43.8	11.6	20	A
Chlordane	ND		ug/kg	285	116.	20	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-03 D

Date Collected: 12/21/18 09:50

Client ID: RB05_13-15

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-04
 Client ID: RB05_19-21
 Sample Location: BRONX, NY

Date Collected: 12/21/18 10:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 18:01
 Analyst: KEG
 Percent Solids: 75%
 Methylation Date: 12/24/18 07:26

Extraction Method: EPA 8151A
 Extraction Date: 12/23/18 00:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	217	13.6	1	A
2,4,5-T	ND		ug/kg	217	6.72	1	A
2,4,5-TP (Silvex)	ND		ug/kg	217	5.76	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	124		30-150	A
DCAA	98		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-04 D
 Client ID: RB05_19-21
 Sample Location: BRONX, NY

Date Collected: 12/21/18 10:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/03/19 14:07
 Analyst: KEG
 Percent Solids: 75%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	41.3	8.09	20	A
Lindane	ND		ug/kg	17.2	7.69	20	A
Alpha-BHC	ND		ug/kg	17.2	4.89	20	A
Beta-BHC	ND		ug/kg	41.3	15.7	20	A
Heptachlor	ND		ug/kg	20.6	9.26	20	A
Aldrin	ND		ug/kg	41.3	14.5	20	A
Heptachlor epoxide	ND		ug/kg	77.5	23.2	20	A
Endrin	ND		ug/kg	17.2	7.06	20	A
Endrin aldehyde	ND		ug/kg	51.6	18.1	20	A
Endrin ketone	ND		ug/kg	41.3	10.6	20	A
Dieldrin	ND		ug/kg	25.8	12.9	20	A
4,4'-DDE	ND		ug/kg	41.3	9.55	20	A
4,4'-DDD	ND		ug/kg	41.3	14.7	20	A
4,4'-DDT	ND		ug/kg	77.5	33.2	20	A
Endosulfan I	ND		ug/kg	41.3	9.76	20	A
Endosulfan II	ND		ug/kg	41.3	13.8	20	A
Endosulfan sulfate	ND		ug/kg	17.2	8.19	20	A
Methoxychlor	ND		ug/kg	77.5	24.1	20	A
Toxaphene	ND		ug/kg	775	217.	20	A
cis-Chlordane	ND		ug/kg	51.6	14.4	20	A
trans-Chlordane	ND		ug/kg	51.6	13.6	20	A
Chlordane	ND		ug/kg	336	137.	20	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-04 D

Date Collected: 12/21/18 10:00

Client ID: RB05_19-21

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-05
 Client ID: RB06_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/28/18 12:47
 Analyst: KEG
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.84	0.361	1	A
Lindane	ND		ug/kg	0.768	0.343	1	A
Alpha-BHC	ND		ug/kg	0.768	0.218	1	A
Beta-BHC	ND		ug/kg	1.84	0.699	1	A
Heptachlor	0.568	J	ug/kg	0.922	0.413	1	B
Aldrin	ND		ug/kg	1.84	0.649	1	A
Heptachlor epoxide	1.26	JIP	ug/kg	3.46	1.04	1	B
Endrin	ND		ug/kg	0.768	0.315	1	A
Endrin aldehyde	ND		ug/kg	2.30	0.807	1	A
Endrin ketone	ND		ug/kg	1.84	0.475	1	A
Dieldrin	ND		ug/kg	1.15	0.576	1	A
4,4'-DDE	101		ug/kg	1.84	0.426	1	A
4,4'-DDD	3.18	IP	ug/kg	1.84	0.658	1	A
4,4'-DDT	255	E	ug/kg	3.46	1.48	1	A
Endosulfan I	ND		ug/kg	1.84	0.436	1	A
Endosulfan II	ND		ug/kg	1.84	0.616	1	A
Endosulfan sulfate	ND		ug/kg	0.768	0.366	1	A
Methoxychlor	ND		ug/kg	3.46	1.08	1	A
Toxaphene	ND		ug/kg	34.6	9.68	1	A
cis-Chlordane	26.7	IP	ug/kg	2.30	0.642	1	B
trans-Chlordane	35.0	IP	ug/kg	2.30	0.608	1	A
Chlordane	ND		ug/kg	15.0	6.11	1	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-05
 Client ID: RB06_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	B
Decachlorobiphenyl	102		30-150	B
2,4,5,6-Tetrachloro-m-xylene	94		30-150	A
Decachlorobiphenyl	103		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-05
 Client ID: RB06_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 18:20
 Analyst: KEG
 Percent Solids: 87%
 Methylation Date: 12/24/18 07:26

Extraction Method: EPA 8151A
 Extraction Date: 12/23/18 00:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	188	11.8	1	A
2,4,5-T	ND		ug/kg	188	5.82	1	A
2,4,5-TP (Silvex)	ND		ug/kg	188	4.99	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	106		30-150	A
DCAA	109		30-150	B

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-05 D

Date Collected: 12/21/18 12:30

Client ID: RB06_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8081B

Extraction Date: 12/24/18 02:47

Analytical Date: 01/03/19 13:29

Cleanup Method: EPA 3620B

Analyst: KEG

Cleanup Date: 12/27/18

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
4,4'-DDT	259		ug/kg	17.3	7.41	5	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-06
 Client ID: RB06_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/28/18 12:59
 Analyst: KEG
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.28	0.446	1	A
Lindane	ND		ug/kg	0.948	0.424	1	A
Alpha-BHC	ND		ug/kg	0.948	0.269	1	A
Beta-BHC	ND		ug/kg	2.28	0.863	1	A
Heptachlor	ND		ug/kg	1.14	0.510	1	A
Aldrin	ND		ug/kg	2.28	0.801	1	A
Heptachlor epoxide	ND	IP	ug/kg	4.27	1.28	1	B
Endrin	ND		ug/kg	0.948	0.389	1	A
Endrin aldehyde	ND		ug/kg	2.84	0.996	1	A
Endrin ketone	ND		ug/kg	2.28	0.586	1	A
Dieldrin	ND		ug/kg	1.42	0.711	1	A
4,4'-DDE	34.1		ug/kg	2.28	0.526	1	A
4,4'-DDD	1.42	J	ug/kg	2.28	0.812	1	B
4,4'-DDT	97.8		ug/kg	4.27	1.83	1	A
Endosulfan I	ND		ug/kg	2.28	0.538	1	A
Endosulfan II	ND		ug/kg	2.28	0.761	1	A
Endosulfan sulfate	ND		ug/kg	0.948	0.451	1	A
Methoxychlor	ND		ug/kg	4.27	1.33	1	A
Toxaphene	ND		ug/kg	42.7	12.0	1	A
cis-Chlordane	7.88	IP	ug/kg	2.84	0.793	1	B
trans-Chlordane	15.6	IP	ug/kg	2.84	0.751	1	A
Chlordane	ND		ug/kg	18.5	7.54	1	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-06
 Client ID: RB06_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	93		30-150	B
Decachlorobiphenyl	69		30-150	B
2,4,5,6-Tetrachloro-m-xylene	97		30-150	A
Decachlorobiphenyl	79		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-06
 Client ID: RB06_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 18:39
 Analyst: KEG
 Percent Solids: 89%
 Methylation Date: 12/24/18 07:26

Extraction Method: EPA 8151A
 Extraction Date: 12/23/18 00:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	184	11.6	1	A
2,4,5-T	ND		ug/kg	184	5.70	1	A
2,4,5-TP (Silvex)	ND		ug/kg	184	4.90	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	115		30-150	A
DCAA	133		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-07
 Client ID: RB06_10-12
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/28/18 13:12
 Analyst: KEG
 Percent Solids: 69%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.31	0.452	1	A
Lindane	ND		ug/kg	0.962	0.430	1	A
Alpha-BHC	ND		ug/kg	0.962	0.273	1	A
Beta-BHC	ND		ug/kg	2.31	0.875	1	A
Heptachlor	ND		ug/kg	1.15	0.517	1	A
Aldrin	ND		ug/kg	2.31	0.813	1	A
Heptachlor epoxide	ND		ug/kg	4.33	1.30	1	A
Endrin	ND		ug/kg	0.962	0.394	1	A
Endrin aldehyde	ND		ug/kg	2.88	1.01	1	A
Endrin ketone	ND		ug/kg	2.31	0.594	1	A
Dieldrin	ND		ug/kg	1.44	0.721	1	A
4,4'-DDE	ND		ug/kg	2.31	0.534	1	A
4,4'-DDD	ND		ug/kg	2.31	0.823	1	A
4,4'-DDT	ND		ug/kg	4.33	1.86	1	A
Endosulfan I	ND		ug/kg	2.31	0.545	1	A
Endosulfan II	ND		ug/kg	2.31	0.771	1	A
Endosulfan sulfate	ND		ug/kg	0.962	0.458	1	A
Methoxychlor	ND		ug/kg	4.33	1.35	1	A
Toxaphene	ND		ug/kg	43.3	12.1	1	A
cis-Chlordane	ND		ug/kg	2.88	0.804	1	A
trans-Chlordane	ND		ug/kg	2.88	0.762	1	A
Chlordane	ND		ug/kg	18.8	7.64	1	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-07
 Client ID: RB06_10-12
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	B
Decachlorobiphenyl	55		30-150	B
2,4,5,6-Tetrachloro-m-xylene	131		30-150	A
Decachlorobiphenyl	59		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-07
 Client ID: RB06_10-12
 Sample Location: BRONX, NY

Date Collected: 12/21/18 12:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 19:16
 Analyst: KEG
 Percent Solids: 69%
 Methylation Date: 12/24/18 07:26

Extraction Method: EPA 8151A
 Extraction Date: 12/23/18 00:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	239	15.1	1	A
2,4,5-T	ND		ug/kg	239	7.42	1	A
2,4,5-TP (Silvex)	ND		ug/kg	239	6.36	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	116		30-150	A
DCAA	93		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-08
 Client ID: RB04_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/28/18 13:25
 Analyst: KEG
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.78	0.349	1	A
Lindane	ND		ug/kg	0.742	0.332	1	A
Alpha-BHC	ND		ug/kg	0.742	0.211	1	A
Beta-BHC	ND		ug/kg	1.78	0.676	1	A
Heptachlor	ND		ug/kg	0.891	0.399	1	A
Aldrin	ND		ug/kg	1.78	0.627	1	A
Heptachlor epoxide	1.03	JIP	ug/kg	3.34	1.00	1	B
Endrin	ND		ug/kg	0.742	0.304	1	A
Endrin aldehyde	ND		ug/kg	2.23	0.779	1	A
Endrin ketone	ND		ug/kg	1.78	0.459	1	A
Dieldrin	ND		ug/kg	1.11	0.557	1	A
4,4'-DDE	44.6		ug/kg	1.78	0.412	1	A
4,4'-DDD	2.64	IP	ug/kg	1.78	0.635	1	A
4,4'-DDT	156	E	ug/kg	3.34	1.43	1	A
Endosulfan I	ND		ug/kg	1.78	0.421	1	A
Endosulfan II	ND		ug/kg	1.78	0.595	1	A
Endosulfan sulfate	ND		ug/kg	0.742	0.353	1	A
Methoxychlor	ND		ug/kg	3.34	1.04	1	A
Toxaphene	ND		ug/kg	33.4	9.35	1	A
cis-Chlordane	16.1		ug/kg	2.23	0.620	1	A
trans-Chlordane	15.2	IP	ug/kg	2.23	0.588	1	A
Chlordane	ND		ug/kg	14.5	5.90	1	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-08
 Client ID: RB04_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89		30-150	B
Decachlorobiphenyl	84		30-150	B
2,4,5,6-Tetrachloro-m-xylene	92		30-150	A
Decachlorobiphenyl	82		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-08
 Client ID: RB04_0-2
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:30
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 19:35
 Analyst: KEG
 Percent Solids: 89%
 Methylation Date: 12/24/18 07:26

Extraction Method: EPA 8151A
 Extraction Date: 12/23/18 00:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	183	11.5	1	A
2,4,5-T	ND		ug/kg	183	5.68	1	A
2,4,5-TP (Silvex)	ND		ug/kg	183	4.87	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	83		30-150	A
DCAA	103		30-150	B

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-08 D

Date Collected: 12/21/18 13:30

Client ID: RB04_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8081B

Extraction Date: 12/24/18 02:47

Analytical Date: 01/03/19 13:42

Cleanup Method: EPA 3620B

Analyst: KEG

Cleanup Date: 12/27/18

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
4,4'-DDT	174		ug/kg	6.68	2.86	2	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-09
 Client ID: RB04_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/28/18 13:37
 Analyst: KEG
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.82	0.356	1	A
Lindane	ND		ug/kg	0.758	0.339	1	A
Alpha-BHC	ND		ug/kg	0.758	0.215	1	A
Beta-BHC	ND		ug/kg	1.82	0.690	1	A
Heptachlor	ND		ug/kg	0.910	0.408	1	A
Aldrin	ND		ug/kg	1.82	0.641	1	A
Heptachlor epoxide	ND		ug/kg	3.41	1.02	1	A
Endrin	ND		ug/kg	0.758	0.311	1	A
Endrin aldehyde	ND		ug/kg	2.28	0.796	1	A
Endrin ketone	ND		ug/kg	1.82	0.469	1	A
Dieldrin	ND		ug/kg	1.14	0.569	1	A
4,4'-DDE	ND		ug/kg	1.82	0.421	1	A
4,4'-DDD	ND		ug/kg	1.82	0.649	1	A
4,4'-DDT	ND		ug/kg	3.41	1.46	1	A
Endosulfan I	ND		ug/kg	1.82	0.430	1	A
Endosulfan II	ND		ug/kg	1.82	0.608	1	A
Endosulfan sulfate	ND		ug/kg	0.758	0.361	1	A
Methoxychlor	ND		ug/kg	3.41	1.06	1	A
Toxaphene	ND		ug/kg	34.1	9.56	1	A
cis-Chlordane	ND		ug/kg	2.28	0.634	1	A
trans-Chlordane	ND		ug/kg	2.28	0.601	1	A
Chlordane	ND		ug/kg	14.8	6.03	1	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-09

Date Collected: 12/21/18 13:40

Client ID: RB04_8-10

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	94		30-150	B
Decachlorobiphenyl	68		30-150	B
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	59		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-09
 Client ID: RB04_8-10
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:40
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 19:54
 Analyst: KEG
 Percent Solids: 88%
 Methylation Date: 12/24/18 07:26

Extraction Method: EPA 8151A
 Extraction Date: 12/23/18 00:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	186	11.7	1	A
2,4,5-T	ND		ug/kg	186	5.77	1	A
2,4,5-TP (Silvex)	ND		ug/kg	186	4.95	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	122		30-150	A
DCAA	100		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-10
 Client ID: RB04_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 20:13
 Analyst: KEG
 Percent Solids: 87%
 Methylation Date: 12/24/18 07:26

Extraction Method: EPA 8151A
 Extraction Date: 12/23/18 00:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	190	12.0	1	A
2,4,5-T	ND		ug/kg	190	5.90	1	A
2,4,5-TP (Silvex)	ND		ug/kg	190	5.06	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	159	Q	30-150	A
DCAA	127		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-10 D
 Client ID: RB04_13-15
 Sample Location: BRONX, NY

Date Collected: 12/21/18 13:50
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/03/19 14:20
 Analyst: KEG
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	90.2	17.7	50	A
Lindane	ND		ug/kg	37.6	16.8	50	A
Alpha-BHC	ND		ug/kg	37.6	10.7	50	A
Beta-BHC	ND		ug/kg	90.2	34.2	50	A
Heptachlor	ND		ug/kg	45.1	20.2	50	A
Aldrin	ND		ug/kg	90.2	31.8	50	A
Heptachlor epoxide	ND		ug/kg	169	50.7	50	A
Endrin	ND		ug/kg	37.6	15.4	50	A
Endrin aldehyde	ND		ug/kg	113	39.5	50	A
Endrin ketone	ND		ug/kg	90.2	23.2	50	A
Dieldrin	ND		ug/kg	56.4	28.2	50	A
4,4'-DDE	ND		ug/kg	90.2	20.9	50	A
4,4'-DDD	ND		ug/kg	90.2	32.2	50	A
4,4'-DDT	ND		ug/kg	169	72.5	50	A
Endosulfan I	ND		ug/kg	90.2	21.3	50	A
Endosulfan II	ND		ug/kg	90.2	30.1	50	A
Endosulfan sulfate	ND		ug/kg	37.6	17.9	50	A
Methoxychlor	ND		ug/kg	169	52.6	50	A
Toxaphene	ND		ug/kg	1690	474.	50	A
cis-Chlordane	ND		ug/kg	113	31.4	50	A
trans-Chlordane	ND		ug/kg	113	29.8	50	A
Chlordane	ND		ug/kg	733	299.	50	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-10 D

Date Collected: 12/21/18 13:50

Client ID: RB04_13-15

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-11
 Client ID: SODUP01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 00:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/28/18 14:03
 Analyst: KEG
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.95	0.381	1	A
Lindane	ND		ug/kg	0.811	0.362	1	A
Alpha-BHC	ND		ug/kg	0.811	0.230	1	A
Beta-BHC	ND		ug/kg	1.95	0.738	1	A
Heptachlor	ND		ug/kg	0.973	0.436	1	A
Aldrin	ND		ug/kg	1.95	0.685	1	A
Heptachlor epoxide	ND		ug/kg	3.65	1.09	1	A
Endrin	ND		ug/kg	0.811	0.332	1	A
Endrin aldehyde	ND		ug/kg	2.43	0.852	1	A
Endrin ketone	ND		ug/kg	1.95	0.501	1	A
Dieldrin	ND		ug/kg	1.22	0.608	1	A
4,4'-DDE	ND		ug/kg	1.95	0.450	1	A
4,4'-DDD	ND		ug/kg	1.95	0.694	1	A
4,4'-DDT	ND		ug/kg	3.65	1.56	1	A
Endosulfan I	ND		ug/kg	1.95	0.460	1	A
Endosulfan II	ND		ug/kg	1.95	0.650	1	A
Endosulfan sulfate	ND		ug/kg	0.811	0.386	1	A
Methoxychlor	ND		ug/kg	3.65	1.14	1	A
Toxaphene	ND		ug/kg	36.5	10.2	1	A
cis-Chlordane	ND		ug/kg	2.43	0.678	1	A
trans-Chlordane	ND		ug/kg	2.43	0.642	1	A
Chlordane	ND		ug/kg	15.8	6.45	1	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-11
 Client ID: SODUP01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 00:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	B
Decachlorobiphenyl	59		30-150	B
2,4,5,6-Tetrachloro-m-xylene	84		30-150	A
Decachlorobiphenyl	62		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-11
 Client ID: SODUP01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 00:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 20:32
 Analyst: KEG
 Percent Solids: 91%
 Methylation Date: 12/24/18 07:26

Extraction Method: EPA 8151A
 Extraction Date: 12/23/18 00:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	181	11.4	1	A
2,4,5-T	ND		ug/kg	181	5.62	1	A
2,4,5-TP (Silvex)	ND		ug/kg	181	4.82	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	110		30-150	A
DCAA	95		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-13
 Client ID: SOFB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:45
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/03/19 13:58
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 12/28/18 00:37

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-13
 Client ID: SOFB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:45
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	17	Q	30-150	A
Decachlorobiphenyl	13	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	17	Q	30-150	B
Decachlorobiphenyl	13	Q	30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-13
 Client ID: SOFB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:45
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/02/19 13:31
 Analyst: KEG

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 15:31

Methylation Date: 12/28/18 08:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	118		30-150	A
DCAA	92		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-13 RE
 Client ID: SOFB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:45
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 12/30/18 18:00
 Analyst: KEG

Extraction Method: EPA 3510C
 Extraction Date: 12/30/18 09:17

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-13 RE

Date Collected: 12/21/18 14:45

Client ID: SOFB01_122118

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	80		30-150	B
Decachlorobiphenyl	71		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-14
 Client ID: RB04_18-20
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 20:51
 Analyst: KEG
 Percent Solids: 88%
 Methylation Date: 12/24/18 07:26

Extraction Method: EPA 8151A
 Extraction Date: 12/23/18 00:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	186	11.7	1	A
2,4,5-T	ND		ug/kg	186	5.78	1	A
2,4,5-TP (Silvex)	ND		ug/kg	186	4.96	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	129		30-150	A
DCAA	105		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-14 D
 Client ID: RB04_18-20
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/03/19 14:32
 Analyst: KEG
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	89.6	17.5	50	A
Lindane	ND		ug/kg	37.3	16.7	50	A
Alpha-BHC	ND		ug/kg	37.3	10.6	50	A
Beta-BHC	ND		ug/kg	89.6	34.0	50	A
Heptachlor	ND		ug/kg	44.8	20.1	50	A
Aldrin	ND		ug/kg	89.6	31.5	50	A
Heptachlor epoxide	ND		ug/kg	168	50.4	50	A
Endrin	ND		ug/kg	37.3	15.3	50	A
Endrin aldehyde	ND		ug/kg	112	39.2	50	A
Endrin ketone	ND		ug/kg	89.6	23.1	50	A
Dieldrin	ND		ug/kg	56.0	28.0	50	A
4,4'-DDE	ND		ug/kg	89.6	20.7	50	A
4,4'-DDD	ND		ug/kg	89.6	31.9	50	A
4,4'-DDT	ND		ug/kg	168	72.0	50	A
Endosulfan I	ND		ug/kg	89.6	21.2	50	A
Endosulfan II	ND		ug/kg	89.6	29.9	50	A
Endosulfan sulfate	ND		ug/kg	37.3	17.8	50	A
Methoxychlor	ND		ug/kg	168	52.2	50	A
Toxaphene	ND		ug/kg	1680	470.	50	A
cis-Chlordane	ND		ug/kg	112	31.2	50	A
trans-Chlordane	ND		ug/kg	112	29.6	50	A
Chlordane	ND		ug/kg	728	297.	50	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-14 D

Date Collected: 12/21/18 14:00

Client ID: RB04_18-20

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8151A
 Analytical Date: 12/31/18 16:08
 Analyst: KEG

Extraction Method: EPA 8151A
 Extraction Date: 12/23/18 00:39

Methylation Date: 12/24/18 07:26

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-11,14 Batch: WG1192478-1						
2,4-D	ND		ug/kg	162	10.2	A
2,4,5-T	ND		ug/kg	162	5.01	A
2,4,5-TP (Silvex)	ND		ug/kg	162	4.30	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	0	Q	30-150	A
DCAA	0	Q	30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 12/27/18 22:15
Analyst: BM

Extraction Method: EPA 3546
Extraction Date: 12/24/18 02:47
Cleanup Method: EPA 3620B
Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-11,14 Batch: WG1192586-1						
Delta-BHC	ND		ug/kg	1.58	0.309	A
Lindane	ND		ug/kg	0.658	0.294	A
Alpha-BHC	ND		ug/kg	0.658	0.187	A
Beta-BHC	ND		ug/kg	1.58	0.599	A
Heptachlor	ND		ug/kg	0.789	0.354	A
Aldrin	ND		ug/kg	1.58	0.556	A
Heptachlor epoxide	ND		ug/kg	2.96	0.888	A
Endrin	ND		ug/kg	0.658	0.270	A
Endrin aldehyde	ND		ug/kg	1.97	0.691	A
Endrin ketone	ND		ug/kg	1.58	0.406	A
Dieldrin	ND		ug/kg	0.987	0.493	A
4,4'-DDE	ND		ug/kg	1.58	0.365	A
4,4'-DDD	ND		ug/kg	1.58	0.563	A
4,4'-DDT	ND		ug/kg	2.96	1.27	A
Endosulfan I	ND		ug/kg	1.58	0.373	A
Endosulfan II	ND		ug/kg	1.58	0.528	A
Endosulfan sulfate	ND		ug/kg	0.658	0.313	A
Methoxychlor	ND		ug/kg	2.96	0.921	A
Toxaphene	ND		ug/kg	29.6	8.29	A
cis-Chlordane	ND		ug/kg	1.97	0.550	A
trans-Chlordane	ND		ug/kg	1.97	0.521	A
Chlordane	ND		ug/kg	12.8	5.23	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
 Analytical Date: 12/27/18 22:15
 Analyst: BM

Extraction Method: EPA 3546
 Extraction Date: 12/24/18 02:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/27/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-11,14 Batch: WG1192586-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	81		30-150	B
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	71		30-150	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**Method Blank Analysis
Batch Quality Control**Analytical Method: 1,8151A
Analytical Date: 01/02/19 12:35
Analyst: KEGExtraction Method: EPA 8151A
Extraction Date: 12/27/18 15:31

Methylation Date: 12/28/18 08:56

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 13 Batch: WG1193192-1						
2,4-D	ND		ug/l	10.0	0.498	A
2,4,5-T	ND		ug/l	2.00	0.531	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	116		30-150	A
DCAA	89		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/03/19 13:20
Analyst: BM

Extraction Method: EPA 3510C
Extraction Date: 12/28/18 00:37

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 13 Batch: WG1193304-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	ND		ug/l	0.014	0.002	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Endrin ketone	ND		ug/l	0.029	0.003	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
4,4'-DDT	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**Method Blank Analysis
Batch Quality Control**Analytical Method: 1,8081B
Analytical Date: 01/03/19 13:20
Analyst: BMExtraction Method: EPA 3510C
Extraction Date: 12/28/18 00:37

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 13 Batch: WG1193304-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	51		30-150	A
Decachlorobiphenyl	45		30-150	A
2,4,5,6-Tetrachloro-m-xylene	54		30-150	B
Decachlorobiphenyl	47		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 12/30/18 17:22
Analyst: KEG

Extraction Method: EPA 3510C
Extraction Date: 12/30/18 07:08

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 13 Batch: WG1193824-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	ND		ug/l	0.014	0.002	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Endrin ketone	ND		ug/l	0.029	0.003	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A
4,4'-DDT	0.025	JIP	ug/l	0.029	0.003	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
 Analytical Date: 12/30/18 17:22
 Analyst: KEG

Extraction Method: EPA 3510C
 Extraction Date: 12/30/18 07:08

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 13 Batch: WG1193824-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	61		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-11,14 Batch: WG1192478-2 WG1192478-3									
2,4-D	89		101		30-150	13		30	A
2,4,5-T	97		103		30-150	6		30	A
2,4,5-TP (Silvex)	85		89		30-150	5		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	91		98		30-150	A
DCAA	108		96		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-11,14 Batch: WG1192586-2 WG1192586-3									
Delta-BHC	94		91		30-150	3		30	A
Lindane	94		90		30-150	4		30	A
Alpha-BHC	99		85		30-150	15		30	A
Beta-BHC	98		97		30-150	1		30	A
Heptachlor	97		94		30-150	3		30	A
Aldrin	86		83		30-150	4		30	A
Heptachlor epoxide	91		88		30-150	3		30	A
Endrin	96		94		30-150	2		30	A
Endrin aldehyde	54		54		30-150	0		30	A
Endrin ketone	82		79		30-150	4		30	A
Dieldrin	99		97		30-150	2		30	A
4,4'-DDE	83		72		30-150	14		30	A
4,4'-DDD	82		85		30-150	4		30	A
4,4'-DDT	94		93		30-150	1		30	A
Endosulfan I	83		80		30-150	4		30	A
Endosulfan II	85		83		30-150	2		30	A
Endosulfan sulfate	66		65		30-150	2		30	A
Methoxychlor	96		95		30-150	1		30	A
cis-Chlordane	72		68		30-150	6		30	A
trans-Chlordane	56		66		30-150	16		30	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852926

Report Date: 01/04/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-11,14 Batch: WG1192586-2 WG1192586-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	83		81		30-150	B
Decachlorobiphenyl	82		82		30-150	B
2,4,5,6-Tetrachloro-m-xylene	76		76		30-150	A
Decachlorobiphenyl	79		77		30-150	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 13 Batch: WG1193192-2 WG1193192-3									
2,4-D	104		103		30-150	1		25	A
2,4,5-T	107		111		30-150	4		25	A
2,4,5-TP (Silvex)	101		100		30-150	1		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	115		115		30-150	A
DCAA	104		122		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 13 Batch: WG1193304-2 WG1193304-3									
Delta-BHC	64		62		30-150	3		20	A
Lindane	64		62		30-150	4		20	A
Alpha-BHC	75		73		30-150	2		20	A
Beta-BHC	70		70		30-150	1		20	A
Heptachlor	62		58		30-150	6		20	A
Aldrin	64		61		30-150	4		20	A
Heptachlor epoxide	66		64		30-150	3		20	A
Endrin	64		63		30-150	2		20	A
Endrin aldehyde	33		36		30-150	10		20	A
Endrin ketone	59		59		30-150	1		20	A
Dieldrin	69		68		30-150	2		20	A
4,4'-DDE	65		63		30-150	3		20	A
4,4'-DDD	64		62		30-150	2		20	A
4,4'-DDT	62		60		30-150	3		20	A
Endosulfan I	77		80		30-150	3		20	A
Endosulfan II	58		57		30-150	1		20	A
Endosulfan sulfate	52		52		30-150	1		20	A
Methoxychlor	69		67		30-150	3		20	A
cis-Chlordane	58		57		30-150	2		20	A
trans-Chlordane	65		64		30-150	2		20	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 13 Batch: WG1193304-2 WG1193304-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	52		51		30-150	A
Decachlorobiphenyl	24	Q	22	Q	30-150	A
2,4,5,6-Tetrachloro-m-xylene	52		50		30-150	B
Decachlorobiphenyl	25	Q	25	Q	30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 13 Batch: WG1193824-2 WG1193824-3									
Delta-BHC	79		83		30-150	5		20	A
Lindane	78		83		30-150	6		20	A
Alpha-BHC	82		86		30-150	5		20	A
Beta-BHC	72		80		30-150	10		20	A
Heptachlor	72		76		30-150	6		20	A
Aldrin	76		80		30-150	5		20	A
Heptachlor epoxide	77		83		30-150	7		20	A
Endrin	78		82		30-150	6		20	A
Endrin aldehyde	74		78		30-150	5		20	A
Endrin ketone	79		82		30-150	4		20	A
Dieldrin	83		88		30-150	5		20	A
4,4'-DDE	76		82		30-150	7		20	A
4,4'-DDD	76		81		30-150	6		20	A
4,4'-DDT	78		84		30-150	8		20	A
Endosulfan I	74		78		30-150	6		20	A
Endosulfan II	73		77		30-150	5		20	A
Endosulfan sulfate	69		73		30-150	6		20	A
Methoxychlor	87		90		30-150	4		20	A
cis-Chlordane	66		67		30-150	0		20	A
trans-Chlordane	73		78		30-150	6		20	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 13 Batch: WG1193824-2 WG1193824-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	64		67		30-150	A
Decachlorobiphenyl	38		38		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		74		30-150	B
Decachlorobiphenyl	42		41		30-150	B

METALS

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-01

Date Collected: 12/21/18 09:35

Client ID: RB05_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4080		mg/kg	8.79	2.37	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Antimony, Total	2.14	J	mg/kg	4.39	0.334	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Arsenic, Total	8.66		mg/kg	0.879	0.183	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Barium, Total	647		mg/kg	0.879	0.153	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Beryllium, Total	0.211	J	mg/kg	0.439	0.029	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Cadmium, Total	1.12		mg/kg	0.879	0.086	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Calcium, Total	61900		mg/kg	8.79	3.08	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Chromium, Total	19.1		mg/kg	0.879	0.084	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Cobalt, Total	4.34		mg/kg	1.76	0.146	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Copper, Total	73.5		mg/kg	0.879	0.227	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Iron, Total	10200		mg/kg	4.39	0.794	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Lead, Total	976		mg/kg	4.39	0.236	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Magnesium, Total	4850		mg/kg	8.79	1.35	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Manganese, Total	219		mg/kg	0.879	0.140	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Mercury, Total	0.514		mg/kg	0.070	0.015	1	12/27/18 07:30	01/02/19 20:37	EPA 7471B	1,7471B	EA
Nickel, Total	15.7		mg/kg	2.20	0.213	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Potassium, Total	830		mg/kg	220	12.6	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Selenium, Total	0.492	J	mg/kg	1.76	0.227	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.879	0.249	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Sodium, Total	360		mg/kg	176	2.77	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.76	0.277	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Vanadium, Total	27.3		mg/kg	0.879	0.178	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
Zinc, Total	731		mg/kg	4.39	0.257	2	12/27/18 19:30	01/02/19 20:10	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	19		mg/kg	0.89	0.89	1		01/02/19 20:10	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-02

Date Collected: 12/21/18 09:40

Client ID: RB05_8-10

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	7460		mg/kg	8.90	2.40	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Antimony, Total	0.498	J	mg/kg	4.45	0.338	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Arsenic, Total	3.18		mg/kg	0.890	0.185	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Barium, Total	75.1		mg/kg	0.890	0.155	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Beryllium, Total	0.365	J	mg/kg	0.445	0.029	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Cadmium, Total	0.089	J	mg/kg	0.890	0.087	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Calcium, Total	14400		mg/kg	8.90	3.12	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Chromium, Total	35.2		mg/kg	0.890	0.086	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Cobalt, Total	8.17		mg/kg	1.78	0.148	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Copper, Total	188		mg/kg	0.890	0.230	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Iron, Total	13600		mg/kg	4.45	0.804	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Lead, Total	79.4		mg/kg	4.45	0.238	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Magnesium, Total	5980		mg/kg	8.90	1.37	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Manganese, Total	329		mg/kg	0.890	0.142	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Mercury, Total	0.688		mg/kg	0.070	0.015	1	12/27/18 07:30	01/02/19 20:39	EPA 7471B	1,7471B	EA
Nickel, Total	30.1		mg/kg	2.22	0.215	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Potassium, Total	2050		mg/kg	222	12.8	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	1.78	0.230	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.890	0.252	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Sodium, Total	121	J	mg/kg	178	2.80	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.78	0.280	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Vanadium, Total	21.4		mg/kg	0.890	0.181	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
Zinc, Total	208		mg/kg	4.45	0.261	2	12/27/18 19:30	01/02/19 20:35	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	35		mg/kg	0.89	0.89	1		01/02/19 20:35	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-03

Date Collected: 12/21/18 09:50

Client ID: RB05_13-15

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6640		mg/kg	8.47	2.29	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Antimony, Total	0.712	J	mg/kg	4.24	0.322	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Arsenic, Total	4.26		mg/kg	0.847	0.176	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Barium, Total	96.2		mg/kg	0.847	0.147	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Beryllium, Total	0.322	J	mg/kg	0.424	0.028	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.847	0.083	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Calcium, Total	7990		mg/kg	8.47	2.96	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Chromium, Total	16.3		mg/kg	0.847	0.081	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Cobalt, Total	8.39		mg/kg	1.69	0.141	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Copper, Total	26.3		mg/kg	0.847	0.218	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Iron, Total	17200		mg/kg	4.24	0.765	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Lead, Total	191		mg/kg	4.24	0.227	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Magnesium, Total	3230		mg/kg	8.47	1.30	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Manganese, Total	160		mg/kg	0.847	0.135	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Mercury, Total	1.11		mg/kg	0.070	0.015	1	12/27/18 07:30	01/02/19 20:41	EPA 7471B	1,7471B	EA
Nickel, Total	16.0		mg/kg	2.12	0.205	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Potassium, Total	2310		mg/kg	212	12.2	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Selenium, Total	0.788	J	mg/kg	1.69	0.218	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.847	0.240	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Sodium, Total	77.0	J	mg/kg	169	2.67	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.69	0.267	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Vanadium, Total	20.2		mg/kg	0.847	0.172	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
Zinc, Total	103		mg/kg	4.24	0.248	2	12/27/18 19:30	01/02/19 20:39	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	16		mg/kg	0.90	0.90	1		01/02/19 20:39	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-04

Date Collected: 12/21/18 10:00

Client ID: RB05_19-21

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 75%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6400		mg/kg	10.3	2.78	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Antimony, Total	1.45	J	mg/kg	5.16	0.392	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Arsenic, Total	7.68		mg/kg	1.03	0.214	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Barium, Total	101		mg/kg	1.03	0.180	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Beryllium, Total	0.330	J	mg/kg	0.516	0.034	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	1.03	0.101	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Calcium, Total	5060		mg/kg	10.3	3.61	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Chromium, Total	14.4		mg/kg	1.03	0.099	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Cobalt, Total	7.59		mg/kg	2.06	0.171	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Copper, Total	227		mg/kg	1.03	0.266	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Iron, Total	14200		mg/kg	5.16	0.932	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Lead, Total	268		mg/kg	5.16	0.276	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Magnesium, Total	2630		mg/kg	10.3	1.59	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Manganese, Total	163		mg/kg	1.03	0.164	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Mercury, Total	1.12		mg/kg	0.084	0.018	1	12/27/18 07:30	01/02/19 20:47	EPA 7471B	1,7471B	EA
Nickel, Total	13.6		mg/kg	2.58	0.250	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Potassium, Total	1640		mg/kg	258	14.8	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Selenium, Total	0.836	J	mg/kg	2.06	0.266	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	1.03	0.292	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Sodium, Total	128	J	mg/kg	206	3.25	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	2.06	0.325	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Vanadium, Total	20.6		mg/kg	1.03	0.209	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
Zinc, Total	130		mg/kg	5.16	0.302	2	12/27/18 19:30	01/02/19 20:44	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	14		mg/kg	1.1	1.1	1		01/02/19 20:44	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-05

Date Collected: 12/21/18 12:30

Client ID: RB06_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	2970		mg/kg	9.01	2.43	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Antimony, Total	5.01		mg/kg	4.50	0.342	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Arsenic, Total	7.39		mg/kg	0.901	0.187	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Barium, Total	826		mg/kg	0.901	0.157	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Beryllium, Total	0.153	J	mg/kg	0.450	0.030	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Cadmium, Total	0.955		mg/kg	0.901	0.088	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Calcium, Total	56400		mg/kg	9.01	3.15	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Chromium, Total	11.4		mg/kg	0.901	0.087	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Cobalt, Total	3.08		mg/kg	1.80	0.150	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Copper, Total	14.2		mg/kg	0.901	0.232	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Iron, Total	5920		mg/kg	4.50	0.813	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Lead, Total	1120		mg/kg	4.50	0.241	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Magnesium, Total	4070		mg/kg	9.01	1.39	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Manganese, Total	163		mg/kg	0.901	0.143	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Mercury, Total	0.417		mg/kg	0.073	0.015	1	12/27/18 07:30	01/02/19 20:49	EPA 7471B	1,7471B	EA
Nickel, Total	5.39		mg/kg	2.25	0.218	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Potassium, Total	644		mg/kg	225	13.0	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Selenium, Total	0.333	J	mg/kg	1.80	0.232	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.901	0.255	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Sodium, Total	373		mg/kg	180	2.84	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.80	0.284	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Vanadium, Total	14.8		mg/kg	0.901	0.183	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
Zinc, Total	1190		mg/kg	4.50	0.264	2	12/27/18 19:30	01/02/19 21:11	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	11	J	mg/kg	0.92	0.92	1		01/02/19 21:11	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-06

Date Collected: 12/21/18 12:40

Client ID: RB06_8-10

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5760		mg/kg	8.72	2.35	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Antimony, Total	1.01	J	mg/kg	4.36	0.331	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Arsenic, Total	7.04		mg/kg	0.872	0.181	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Barium, Total	91.5		mg/kg	0.872	0.152	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Beryllium, Total	0.331	J	mg/kg	0.436	0.029	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.872	0.085	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Calcium, Total	16900		mg/kg	8.72	3.05	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Chromium, Total	11.4		mg/kg	0.872	0.084	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Cobalt, Total	5.54		mg/kg	1.74	0.145	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Copper, Total	37.1		mg/kg	0.872	0.225	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Iron, Total	11400		mg/kg	4.36	0.787	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Lead, Total	539		mg/kg	4.36	0.234	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Magnesium, Total	2300		mg/kg	8.72	1.34	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Manganese, Total	245		mg/kg	0.872	0.139	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Mercury, Total	1.12		mg/kg	0.070	0.015	1	12/27/18 07:30	01/02/19 20:51	EPA 7471B	1,7471B	EA
Nickel, Total	15.8		mg/kg	2.18	0.211	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Potassium, Total	599		mg/kg	218	12.6	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Selenium, Total	0.331	J	mg/kg	1.74	0.225	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.872	0.247	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Sodium, Total	125	J	mg/kg	174	2.75	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.74	0.275	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Vanadium, Total	13.7		mg/kg	0.872	0.177	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
Zinc, Total	114		mg/kg	4.36	0.255	2	12/27/18 19:30	01/02/19 21:16	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	11	J	mg/kg	0.90	0.90	1		01/02/19 21:16	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-07

Date Collected: 12/21/18 12:50

Client ID: RB06_10-12

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 69%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	11200		mg/kg	11.5	3.10	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Antimony, Total	1.18	J	mg/kg	5.73	0.436	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Arsenic, Total	8.60		mg/kg	1.15	0.238	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Barium, Total	22.9		mg/kg	1.15	0.200	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Beryllium, Total	0.585		mg/kg	0.573	0.038	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	1.15	0.112	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Calcium, Total	2200		mg/kg	11.5	4.01	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Chromium, Total	22.9		mg/kg	1.15	0.110	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Cobalt, Total	9.16		mg/kg	2.29	0.190	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Copper, Total	9.15		mg/kg	1.15	0.296	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Iron, Total	23700		mg/kg	5.73	1.04	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Lead, Total	10.9		mg/kg	5.73	0.307	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Magnesium, Total	5660		mg/kg	11.5	1.77	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Manganese, Total	254		mg/kg	1.15	0.182	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.092	0.019	1	12/27/18 07:30	01/02/19 20:52	EPA 7471B	1,7471B	EA
Nickel, Total	18.8		mg/kg	2.87	0.278	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Potassium, Total	2390		mg/kg	287	16.5	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Selenium, Total	0.367	J	mg/kg	2.29	0.296	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	1.15	0.324	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Sodium, Total	233		mg/kg	229	3.61	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	2.29	0.361	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Vanadium, Total	29.0		mg/kg	1.15	0.233	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
Zinc, Total	59.2		mg/kg	5.73	0.336	2	12/27/18 19:30	01/02/19 21:20	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	23		mg/kg	1.2	1.2	1		01/02/19 21:20	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-08

Date Collected: 12/21/18 13:30

Client ID: RB04_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6460		mg/kg	8.82	2.38	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Antimony, Total	1.68	J	mg/kg	4.41	0.335	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Arsenic, Total	9.85		mg/kg	0.882	0.183	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Barium, Total	282		mg/kg	0.882	0.153	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Beryllium, Total	0.362	J	mg/kg	0.441	0.029	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.882	0.086	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Calcium, Total	39500		mg/kg	8.82	3.09	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Chromium, Total	12.7		mg/kg	0.882	0.085	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Cobalt, Total	6.49		mg/kg	1.76	0.146	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Copper, Total	18.5		mg/kg	0.882	0.228	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Iron, Total	12300		mg/kg	4.41	0.796	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Lead, Total	294		mg/kg	4.41	0.236	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Magnesium, Total	4440		mg/kg	8.82	1.36	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Manganese, Total	205		mg/kg	0.882	0.140	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Mercury, Total	0.506		mg/kg	0.071	0.015	1	12/27/18 07:30	01/02/19 20:54	EPA 7471B	1,7471B	EA
Nickel, Total	12.2		mg/kg	2.20	0.213	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Potassium, Total	1710		mg/kg	220	12.7	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Selenium, Total	0.494	J	mg/kg	1.76	0.228	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.882	0.250	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Sodium, Total	503		mg/kg	176	2.78	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.76	0.278	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Vanadium, Total	18.3		mg/kg	0.882	0.179	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
Zinc, Total	476		mg/kg	4.41	0.258	2	12/27/18 19:30	01/02/19 21:24	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	13		mg/kg	0.90	0.90	1		01/02/19 21:24	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-09

Date Collected: 12/21/18 13:40

Client ID: RB04_8-10

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6810		mg/kg	9.00	2.43	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Antimony, Total	0.774	J	mg/kg	4.50	0.342	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Arsenic, Total	3.56		mg/kg	0.900	0.187	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Barium, Total	49.8		mg/kg	0.900	0.157	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Beryllium, Total	0.324	J	mg/kg	0.450	0.030	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.900	0.088	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Calcium, Total	13600		mg/kg	9.00	3.15	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Chromium, Total	12.9		mg/kg	0.900	0.086	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Cobalt, Total	7.64		mg/kg	1.80	0.149	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Copper, Total	18.4		mg/kg	0.900	0.232	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Iron, Total	16700		mg/kg	4.50	0.813	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Lead, Total	72.0		mg/kg	4.50	0.241	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Magnesium, Total	8370		mg/kg	9.00	1.39	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Manganese, Total	284		mg/kg	0.900	0.143	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Mercury, Total	0.639		mg/kg	0.072	0.015	1	12/27/18 07:30	01/02/19 20:56	EPA 7471B	1,7471B	EA
Nickel, Total	12.5		mg/kg	2.25	0.218	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Potassium, Total	1210		mg/kg	225	13.0	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	1.80	0.232	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.900	0.255	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Sodium, Total	166	J	mg/kg	180	2.84	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.80	0.284	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Vanadium, Total	18.6		mg/kg	0.900	0.183	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
Zinc, Total	129		mg/kg	4.50	0.264	2	12/27/18 19:30	01/02/19 21:28	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	13		mg/kg	0.91	0.91	1		01/02/19 21:28	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-10

Date Collected: 12/21/18 13:50

Client ID: RB04_13-15

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6240		mg/kg	9.14	2.47	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Antimony, Total	0.411	J	mg/kg	4.57	0.347	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Arsenic, Total	3.11		mg/kg	0.914	0.190	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Barium, Total	94.4		mg/kg	0.914	0.159	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Beryllium, Total	0.283	J	mg/kg	0.457	0.030	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.914	0.090	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Calcium, Total	18900		mg/kg	9.14	3.20	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Chromium, Total	14.0		mg/kg	0.914	0.088	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Cobalt, Total	6.24		mg/kg	1.83	0.152	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Copper, Total	19.9		mg/kg	0.914	0.236	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Iron, Total	13800		mg/kg	4.57	0.826	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Lead, Total	57.5		mg/kg	4.57	0.245	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Magnesium, Total	4830		mg/kg	9.14	1.41	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Manganese, Total	295		mg/kg	0.914	0.145	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Mercury, Total	0.553		mg/kg	0.072	0.015	1	12/27/18 07:30	01/02/19 20:58	EPA 7471B	1,7471B	EA
Nickel, Total	11.1		mg/kg	2.28	0.221	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Potassium, Total	1720		mg/kg	228	13.2	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Selenium, Total	0.247	J	mg/kg	1.83	0.236	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.914	0.259	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Sodium, Total	164	J	mg/kg	183	2.88	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.83	0.288	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Vanadium, Total	15.0		mg/kg	0.914	0.186	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
Zinc, Total	67.8		mg/kg	4.57	0.268	2	12/27/18 19:30	01/02/19 21:32	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	14		mg/kg	0.92	0.92	1		01/02/19 21:32	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-11
 Client ID: SODUP01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 00:00
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4850		mg/kg	8.60	2.32	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Antimony, Total	0.550	J	mg/kg	4.30	0.327	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Arsenic, Total	1.90		mg/kg	0.860	0.179	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Barium, Total	32.8		mg/kg	0.860	0.150	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Beryllium, Total	0.241	J	mg/kg	0.430	0.028	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.860	0.084	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Calcium, Total	9970		mg/kg	8.60	3.01	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Chromium, Total	10.6		mg/kg	0.860	0.083	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Cobalt, Total	6.15		mg/kg	1.72	0.143	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Copper, Total	28.4		mg/kg	0.860	0.222	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Iron, Total	11900		mg/kg	4.30	0.776	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Lead, Total	32.5		mg/kg	4.30	0.230	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Magnesium, Total	6470		mg/kg	8.60	1.32	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Manganese, Total	205		mg/kg	0.860	0.137	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Mercury, Total	0.277		mg/kg	0.070	0.015	1	12/27/18 07:30	01/02/19 21:00	EPA 7471B	1,7471B	EA
Nickel, Total	8.80		mg/kg	2.15	0.208	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Potassium, Total	1020		mg/kg	215	12.4	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	1.72	0.222	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.860	0.243	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Sodium, Total	137	J	mg/kg	172	2.71	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.72	0.271	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Vanadium, Total	16.1		mg/kg	0.860	0.174	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
Zinc, Total	39.9		mg/kg	4.30	0.252	2	12/27/18 19:30	01/02/19 21:36	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	10	J	mg/kg	0.88	0.88	1		01/02/19 21:36	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-13
 Client ID: SOFB01_122118
 Sample Location: BRONX, NY

Date Collected: 12/21/18 14:45
 Date Received: 12/21/18
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.100	0.032	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Antimony, Total	ND		mg/l	0.050	0.007	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Arsenic, Total	ND		mg/l	0.005	0.002	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Barium, Total	0.002	J	mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Beryllium, Total	ND		mg/l	0.005	0.001	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Cadmium, Total	ND		mg/l	0.005	0.001	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Calcium, Total	ND		mg/l	0.100	0.035	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Chromium, Total	ND		mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Cobalt, Total	ND		mg/l	0.020	0.002	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Copper, Total	0.003	J	mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Iron, Total	ND		mg/l	0.050	0.009	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Lead, Total	ND		mg/l	0.010	0.003	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Magnesium, Total	ND		mg/l	0.100	0.015	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Manganese, Total	ND		mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/02/19 11:01	01/02/19 16:46	EPA 7470A	1,7470A	MG
Nickel, Total	ND		mg/l	0.025	0.002	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Potassium, Total	ND		mg/l	2.50	0.237	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Selenium, Total	ND		mg/l	0.010	0.004	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Silver, Total	ND		mg/l	0.007	0.003	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Sodium, Total	ND		mg/l	2.00	0.120	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Thallium, Total	ND		mg/l	0.020	0.003	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Vanadium, Total	ND		mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
Zinc, Total	ND		mg/l	0.050	0.002	1	01/02/19 12:55	01/03/19 09:33	EPA 3005A	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/03/19 09:33	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-14

Date Collected: 12/21/18 14:00

Client ID: RB04_18-20

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5930		mg/kg	8.79	2.37	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.40	0.334	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Arsenic, Total	2.52		mg/kg	0.879	0.183	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Barium, Total	58.2		mg/kg	0.879	0.153	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Beryllium, Total	0.211	J	mg/kg	0.440	0.029	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.879	0.086	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Calcium, Total	14600		mg/kg	8.79	3.08	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Chromium, Total	11.4		mg/kg	0.879	0.084	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Cobalt, Total	7.18		mg/kg	1.76	0.146	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Copper, Total	18.4		mg/kg	0.879	0.227	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Iron, Total	11400		mg/kg	4.40	0.794	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Lead, Total	52.2		mg/kg	4.40	0.236	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Magnesium, Total	4470		mg/kg	8.79	1.35	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Manganese, Total	269		mg/kg	0.879	0.140	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Mercury, Total	0.242		mg/kg	0.072	0.015	1	12/27/18 07:30	01/02/19 21:02	EPA 7471B	1,7471B	EA
Nickel, Total	11.6		mg/kg	2.20	0.213	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Potassium, Total	2540		mg/kg	220	12.7	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Selenium, Total	0.325	J	mg/kg	1.76	0.227	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.879	0.249	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Sodium, Total	205		mg/kg	176	2.77	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.76	0.277	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Vanadium, Total	15.5		mg/kg	0.879	0.178	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
Zinc, Total	43.4		mg/kg	4.40	0.258	2	12/27/18 19:30	01/02/19 21:41	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	11		mg/kg	0.91	0.91	1		01/02/19 21:41	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-11,14 Batch: WG1192962-1									
Mercury, Total	ND	mg/kg	0.083	0.018	1	12/27/18 07:30	01/02/19 20:10	1,7471B	EA

Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
Total Metals - Mansfield Lab for sample(s): 01-11,14 Batch: WG1193229-1										
Aluminum, Total	ND	mg/kg	4.00	1.08	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Antimony, Total	ND	mg/kg	2.00	0.152	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Arsenic, Total	ND	mg/kg	0.400	0.083	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Barium, Total	ND	mg/kg	0.400	0.070	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Beryllium, Total	ND	mg/kg	0.200	0.013	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Cadmium, Total	ND	mg/kg	0.400	0.039	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Calcium, Total	ND	mg/kg	4.00	1.40	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Chromium, Total	ND	mg/kg	0.400	0.038	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Cobalt, Total	ND	mg/kg	0.800	0.066	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Copper, Total	ND	mg/kg	0.400	0.103	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Iron, Total	0.672	J	mg/kg	2.00	0.361	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB
Lead, Total	ND	mg/kg	2.00	0.107	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Magnesium, Total	ND	mg/kg	4.00	0.616	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Manganese, Total	ND	mg/kg	0.400	0.064	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Nickel, Total	ND	mg/kg	1.00	0.097	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Potassium, Total	ND	mg/kg	100	5.76	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Selenium, Total	ND	mg/kg	0.800	0.103	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Silver, Total	ND	mg/kg	0.400	0.113	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Sodium, Total	ND	mg/kg	80.0	1.26	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Thallium, Total	ND	mg/kg	0.800	0.126	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Vanadium, Total	ND	mg/kg	0.400	0.081	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	
Zinc, Total	ND	mg/kg	2.00	0.117	1	12/27/18 19:30	01/02/19 19:20	1,6010D	AB	



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3050B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 13 Batch: WG1193992-1									
Mercury, Total	ND	mg/l	0.00020	0.00006	1	01/02/19 11:01	01/02/19 16:42	1,7470A	MG

Prep Information

Digestion Method: EPA 7470A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
Total Metals - Mansfield Lab for sample(s): 13 Batch: WG1194043-1										
Aluminum, Total	ND	mg/l	0.100	0.032	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Antimony, Total	ND	mg/l	0.050	0.007	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Arsenic, Total	ND	mg/l	0.005	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Barium, Total	ND	mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Beryllium, Total	ND	mg/l	0.005	0.001	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Cadmium, Total	ND	mg/l	0.005	0.001	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Calcium, Total	ND	mg/l	0.100	0.035	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Chromium, Total	ND	mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Cobalt, Total	ND	mg/l	0.020	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Copper, Total	0.004	J	mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Iron, Total	ND	mg/l	0.050	0.009	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Lead, Total	ND	mg/l	0.010	0.003	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Magnesium, Total	ND	mg/l	0.100	0.015	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Manganese, Total	ND	mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Nickel, Total	ND	mg/l	0.025	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Potassium, Total	ND	mg/l	2.50	0.237	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Selenium, Total	ND	mg/l	0.010	0.004	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Silver, Total	ND	mg/l	0.007	0.003	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Sodium, Total	ND	mg/l	2.00	0.120	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Thallium, Total	ND	mg/l	0.020	0.003	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	
Vanadium, Total	ND	mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC	



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Zinc, Total	ND	mg/l	0.050	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
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Prep Information

Digestion Method: EPA 3005A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11,14 Batch: WG1192962-2 SRM Lot Number: D102-540								
Mercury, Total	108		-		65-134	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852926

Report Date: 01/04/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11,14 Batch: WG1193229-2 SRM Lot Number: D102-540					
Aluminum, Total	67	-	49-150	-	
Antimony, Total	123	-	1-199	-	
Arsenic, Total	92	-	83-117	-	
Barium, Total	87	-	83-118	-	
Beryllium, Total	90	-	83-116	-	
Cadmium, Total	92	-	83-118	-	
Calcium, Total	82	-	82-118	-	
Chromium, Total	83	-	83-117	-	
Cobalt, Total	90	-	84-116	-	
Copper, Total	88	-	84-116	-	
Iron, Total	78	-	61-139	-	
Lead, Total	83	-	82-118	-	
Magnesium, Total	81	-	76-124	-	
Manganese, Total	82	-	82-118	-	
Nickel, Total	86	-	83-117	-	
Potassium, Total	82	-	70-130	-	
Selenium, Total	91	-	79-121	-	
Silver, Total	86	-	80-120	-	
Sodium, Total	102	-	74-126	-	
Thallium, Total	98	-	81-119	-	
Vanadium, Total	84	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852926

Report Date: 01/04/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11,14 Batch: WG1193229-2 SRM Lot Number: D102-540					
Zinc, Total	87	-	81-118	-	
Total Metals - Mansfield Lab Associated sample(s): 13 Batch: WG1193992-2					
Mercury, Total	94	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13 Batch: WG1194043-2					
Aluminum, Total	111	-	80-120	-	
Antimony, Total	98	-	80-120	-	
Arsenic, Total	115	-	80-120	-	
Barium, Total	105	-	80-120	-	
Beryllium, Total	104	-	80-120	-	
Cadmium, Total	111	-	80-120	-	
Calcium, Total	108	-	80-120	-	
Chromium, Total	104	-	80-120	-	
Cobalt, Total	103	-	80-120	-	
Copper, Total	102	-	80-120	-	
Iron, Total	112	-	80-120	-	
Lead, Total	110	-	80-120	-	
Magnesium, Total	112	-	80-120	-	
Manganese, Total	102	-	80-120	-	
Nickel, Total	104	-	80-120	-	
Potassium, Total	109	-	80-120	-	
Selenium, Total	118	-	80-120	-	
Silver, Total	110	-	80-120	-	
Sodium, Total	115	-	80-120	-	
Thallium, Total	109	-	80-120	-	
Vanadium, Total	107	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13 Batch: WG1194043-2					
Zinc, Total	110	-	80-120	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11,14 QC Batch ID: WG1192962-3 QC Sample: L1852815-01 Client ID: MS Sample											
Mercury, Total	0.298	0.18	0.575	154	Q	-	-		80-120	-	20

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11,14 QC Batch ID: WG1193229-3 QC Sample: L1852926-01 Client ID: RB05_0-2									
Aluminum, Total	4080	176	4120	23	Q	-	75-125	-	20
Antimony, Total	2.14J	44	38.2	87		-	75-125	-	20
Arsenic, Total	8.66	10.6	19.3	101		-	75-125	-	20
Barium, Total	647	176	1210	320	Q	-	75-125	-	20
Beryllium, Total	0.211J	4.4	4.28	97		-	75-125	-	20
Cadmium, Total	1.12	4.49	5.37	95		-	75-125	-	20
Calcium, Total	61900	881	70600	988	Q	-	75-125	-	20
Chromium, Total	19.1	17.6	39.4	115		-	75-125	-	20
Cobalt, Total	4.34	44	43.2	88		-	75-125	-	20
Copper, Total	73.5	22	90.6	78		-	75-125	-	20
Iron, Total	10200	88.1	9020	0	Q	-	75-125	-	20
Lead, Total	976	44.9	1740	1700	Q	-	75-125	-	20
Magnesium, Total	4850	881	5480	72	Q	-	75-125	-	20
Manganese, Total	219	44	291	163	Q	-	75-125	-	20
Nickel, Total	15.7	44	48.8	75		-	75-125	-	20
Potassium, Total	830	881	1720	101		-	75-125	-	20
Selenium, Total	0.492J	10.6	10.5	99		-	75-125	-	20
Silver, Total	ND	26.4	28.1	106		-	75-125	-	20
Sodium, Total	360	881	1190	94		-	75-125	-	20
Thallium, Total	ND	10.6	8.19	77		-	75-125	-	20
Vanadium, Total	27.3	44	69.0	95		-	75-125	-	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11,14 QC Batch ID: WG1193229-3 QC Sample: L1852926-01 Client ID: RB05_0-2									
Zinc, Total	731	44	940	474	Q	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 13 QC Batch ID: WG1193992-3 QC Sample: L1852926-13 Client ID: SOFB01_122118									
Mercury, Total	ND	0.005	0.00431	86	-	-	75-125	-	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13 QC Batch ID: WG1194043-3 QC Sample: L1852881-01 Client ID: MS Sample									
Aluminum, Total	0.139	2	2.39	112	-	-	75-125	-	20
Antimony, Total	ND	0.5	0.523	105	-	-	75-125	-	20
Arsenic, Total	ND	0.12	0.138	115	-	-	75-125	-	20
Barium, Total	0.004J	2	2.13	106	-	-	75-125	-	20
Beryllium, Total	ND	0.05	0.053	106	-	-	75-125	-	20
Cadmium, Total	ND	0.051	0.057	112	-	-	75-125	-	20
Calcium, Total	7.51	10	19.2	117	-	-	75-125	-	20
Chromium, Total	ND	0.2	0.212	106	-	-	75-125	-	20
Cobalt, Total	0.002J	0.5	0.523	105	-	-	75-125	-	20
Copper, Total	0.005J	0.25	0.261	104	-	-	75-125	-	20
Iron, Total	0.151	1	1.29	114	-	-	75-125	-	20
Lead, Total	ND	0.51	0.562	110	-	-	75-125	-	20
Magnesium, Total	1.50	10	12.7	112	-	-	75-125	-	20
Manganese, Total	0.018	0.5	0.530	102	-	-	75-125	-	20
Nickel, Total	0.007J	0.5	0.529	106	-	-	75-125	-	20
Potassium, Total	0.529J	10	11.4	114	-	-	75-125	-	20
Selenium, Total	ND	0.12	0.142	118	-	-	75-125	-	20
Silver, Total	ND	0.05	0.054	108	-	-	75-125	-	20
Sodium, Total	2.04	10	13.4	114	-	-	75-125	-	20
Thallium, Total	ND	0.12	0.131	109	-	-	75-125	-	20
Vanadium, Total	ND	0.5	0.539	108	-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13 QC Batch ID: WG1194043-3 QC Sample: L1852881-01 Client ID: MS Sample									
Zinc, Total	0.010J	0.5	0.566	113	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852926

Report Date: 01/04/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11,14 QC Batch ID: WG1192962-4 QC Sample: L1852815-01 Client ID: DUP Sample						
Mercury, Total	0.298	0.305	mg/kg	2		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852926

Report Date: 01/04/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11,14 QC Batch ID: WG1193229-4 QC Sample: L1852926-01 Client ID: RB05_0-2					
Aluminum, Total	4080	4010	mg/kg	2	20
Antimony, Total	2.14J	2.12J	mg/kg	NC	20
Arsenic, Total	8.66	8.07	mg/kg	7	20
Barium, Total	647	540	mg/kg	18	20
Beryllium, Total	0.211J	0.208J	mg/kg	NC	20
Cadmium, Total	1.12	1.08	mg/kg	4	20
Calcium, Total	61900	63200	mg/kg	2	20
Chromium, Total	19.1	17.6	mg/kg	8	20
Cobalt, Total	4.34	4.64	mg/kg	7	20
Copper, Total	73.5	68.8	mg/kg	7	20
Iron, Total	10200	12700	mg/kg	22	Q 20
Lead, Total	976	876	mg/kg	11	20
Magnesium, Total	4850	5510	mg/kg	13	20
Manganese, Total	219	234	mg/kg	7	20
Nickel, Total	15.7	13.7	mg/kg	14	20
Potassium, Total	830	866	mg/kg	4	20
Selenium, Total	0.492J	0.659J	mg/kg	NC	20
Silver, Total	ND	ND	mg/kg	NC	20
Sodium, Total	360	343	mg/kg	5	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852926

Report Date: 01/04/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11,14 QC Batch ID: WG1193229-4 QC Sample: L1852926-01 Client ID: RB05_0-2					
Thallium, Total	ND	ND	mg/kg	NC	20
Vanadium, Total	27.3	27.2	mg/kg	0	20
Zinc, Total	731	761	mg/kg	4	20
Total Metals - Mansfield Lab Associated sample(s): 13 QC Batch ID: WG1193992-4 QC Sample: L1852926-13 Client ID: SOFB01_122118					
Mercury, Total	ND	ND	mg/l	NC	20
Total Metals - Mansfield Lab Associated sample(s): 13 QC Batch ID: WG1194043-4 QC Sample: L1852881-01 Client ID: DUP Sample					
Iron, Total	0.151	0.154	mg/l	2	20
Manganese, Total	0.018	0.019	mg/l	2	20

INORGANICS & MISCELLANEOUS

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-01

Date Collected: 12/21/18 09:35

Client ID: RB05_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.1		%	0.100	NA	1	-	12/26/18 14:03	121,2540G	RI
Cyanide, Total	0.34	J	mg/kg	1.1	0.23	1	12/22/18 16:10	12/26/18 14:42	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.888	0.178	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-02

Date Collected: 12/21/18 09:40

Client ID: RB05_8-10

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.5		%	0.100	NA	1	-	12/26/18 14:03	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.23	1	12/22/18 16:10	12/26/18 14:53	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.894	0.179	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-03

Date Collected: 12/21/18 09:50

Client ID: RB05_13-15

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.3		%	0.100	NA	1	-	12/26/18 14:03	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	12/22/18 16:10	12/26/18 14:54	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.896	0.179	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-04

Date Collected: 12/21/18 10:00

Client ID: RB05_19-21

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	75.2		%	0.100	NA	1	-	12/26/18 14:03	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.3	0.27	1	12/22/18 16:10	12/26/18 14:55	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	1.06	0.213	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-05

Date Collected: 12/21/18 12:30

Client ID: RB06_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.6		%	0.100	NA	1	-	12/26/18 14:03	121,2540G	RI
Cyanide, Total	0.92	J	mg/kg	1.1	0.24	1	12/22/18 16:10	12/26/18 14:56	1,9010C/9012B	LH
Chromium, Hexavalent	0.716	J	mg/kg	0.924	0.185	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-06

Date Collected: 12/21/18 12:40

Client ID: RB06_8-10

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.2		%	0.100	NA	1	-	12/26/18 14:03	121,2540G	RI
Cyanide, Total	1.1		mg/kg	1.0	0.22	1	12/22/18 16:10	12/26/18 14:57	1,9010C/9012B	LH
Chromium, Hexavalent	0.190	J	mg/kg	0.897	0.179	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-07

Date Collected: 12/21/18 12:50

Client ID: RB06_10-12

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	68.5		%	0.100	NA	1	-	12/26/18 14:03	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.4	0.30	1	12/22/18 16:10	12/26/18 14:58	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	1.17	0.234	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-08

Date Collected: 12/21/18 13:30

Client ID: RB04_0-2

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.8		%	0.100	NA	1	-	12/26/18 14:03	121,2540G	RI
Cyanide, Total	0.35	J	mg/kg	1.1	0.24	1	12/22/18 16:10	12/26/18 15:14	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.901	0.180	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-09

Date Collected: 12/21/18 13:40

Client ID: RB04_8-10

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.6		%	0.100	NA	1	-	12/26/18 14:03	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	12/26/18 11:10	12/27/18 12:37	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.913	0.183	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-10

Date Collected: 12/21/18 13:50

Client ID: RB04_13-15

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.6		%	0.100	NA	1	-	12/26/18 14:03	121,2540G	RI
Cyanide, Total	0.39	J	mg/kg	1.1	0.24	1	12/26/18 11:10	12/27/18 12:04	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.924	0.185	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-11

Date Collected: 12/21/18 00:00

Client ID: SODUP01_122118

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.8		%	0.100	NA	1	-	12/26/18 14:03	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	12/26/18 11:10	12/27/18 12:05	1,9010C/9012B	LH
Chromium, Hexavalent	0.430	J	mg/kg	0.881	0.176	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1852926-13

Date Collected: 12/21/18 14:45

Client ID: SOFB01_122118

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	12/22/18 12:15	12/26/18 12:28	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	12/22/18 07:45	12/22/18 08:00	1,7196A	MA



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1852926-14

Date Collected: 12/21/18 14:00

Client ID: RB04_18-20

Date Received: 12/21/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.8		%	0.100	NA	1	-	12/26/18 14:03	121,2540G	RI
Cyanide, Total	0.25	J	mg/kg	1.1	0.22	1	12/26/18 11:10	12/27/18 12:06	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.911	0.182	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 13 Batch: WG1192356-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	12/22/18 07:45	12/22/18 08:00	1,7196A	MA
General Chemistry - Westborough Lab for sample(s): 13 Batch: WG1192406-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	12/22/18 12:15	12/26/18 12:04	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG1192428-1										
Cyanide, Total	ND		mg/kg	0.92	0.20	1	12/22/18 12:55	12/26/18 14:13	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 09-11,14 Batch: WG1192704-1										
Cyanide, Total	ND		mg/kg	0.84	0.18	1	12/26/18 11:10	12/27/18 11:46	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 01-10 Batch: WG1192810-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH
General Chemistry - Westborough Lab for sample(s): 11,14 Batch: WG1192812-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	12/23/18 17:04	12/27/18 11:04	1,7196A	NH

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 13 Batch: WG1192356-2								
Chromium, Hexavalent	92		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 13 Batch: WG1192406-2 WG1192406-3								
Cyanide, Total	95		96		85-115	1		20
General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG1192428-2 WG1192428-3								
Cyanide, Total	73	Q	78	Q	80-120	4		35
General Chemistry - Westborough Lab Associated sample(s): 09-11,14 Batch: WG1192704-2 WG1192704-3								
Cyanide, Total	81		72	Q	80-120	11		35
General Chemistry - Westborough Lab Associated sample(s): 01-10 Batch: WG1192810-2								
Chromium, Hexavalent	83		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 11,14 Batch: WG1192812-2								
Chromium, Hexavalent	83		-		80-120	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 13 QC Batch ID: WG1192356-4 QC Sample: L1852926-13 Client ID: SOFB01_122118												
Chromium, Hexavalent	ND	0.1	0.095	95	-	-	-	-	85-115	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 13 QC Batch ID: WG1192406-4 WG1192406-5 QC Sample: L1852588-01 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.184	92	0.187	94	94	80-120	2	2	-	20
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1192428-4 WG1192428-5 QC Sample: L1852926-01 Client ID: RB05_0-2												
Cyanide, Total	0.34J	10	11	100	10	91	91	75-125	10	10	-	35
General Chemistry - Westborough Lab Associated sample(s): 09-11,14 QC Batch ID: WG1192704-4 WG1192704-5 QC Sample: L1852926-09 Client ID: RB04_8-10												
Cyanide, Total	ND	11	11	98	10	88	88	75-125	10	10	-	35
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG1192810-4 QC Sample: L1852926-10 Client ID: RB04_13-15												
Chromium, Hexavalent	ND	1400	ND	0	Q	-	-	-	75-125	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 11,14 QC Batch ID: WG1192812-4 QC Sample: L1852926-14 Client ID: RB04_18-20												
Chromium, Hexavalent	ND	1040	830	80	-	-	-	-	75-125	-	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1852926

Report Date: 01/04/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 13 QC Batch ID: WG1192356-3 QC Sample: L1852926-13 Client ID: SOFB01_122118						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-11,14 QC Batch ID: WG1192773-1 QC Sample: L1852926-01 Client ID: RB05_0-2						
Solids, Total	90.1	91.0	%	1		20
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG1192810-6 QC Sample: L1852926-10 Client ID: RB04_13-15						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20
General Chemistry - Westborough Lab Associated sample(s): 11,14 QC Batch ID: WG1192812-6 QC Sample: L1852926-14 Client ID: RB04_18-20						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Serial_No:01041915:58
Lab Number: L1852926
Report Date: 01/04/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1852926-01A	Vial MeOH preserved	B	NA		4.8	Y	Absent		NYTCL-8260HLW(14)
L1852926-01B	Vial water preserved	B	NA		4.8	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-01C	Vial water preserved	B	NA		4.8	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-01D	Plastic 2oz unpreserved for TS	A	NA		4.7	Y	Absent		TS(7)
L1852926-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.7	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852926-01F	Glass 120ml/4oz unpreserved	A	NA		4.7	Y	Absent		HEXCR-7196(30)
L1852926-01G	Glass 500ml/16oz unpreserved	A	NA		4.7	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(14)
L1852926-02A	Vial MeOH preserved	A	NA		4.7	Y	Absent		NYTCL-8260HLW(14)
L1852926-02B	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-02C	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-02D	Plastic 2oz unpreserved for TS	A	NA		4.7	Y	Absent		TS(7)
L1852926-02E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.7	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852926-02F	Glass 120ml/4oz unpreserved	A	NA		4.7	Y	Absent		HEXCR-7196(30)
L1852926-02G	Glass 500ml/16oz unpreserved	A	NA		4.7	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(14)
L1852926-03A	Vial MeOH preserved	A	NA		4.7	Y	Absent		NYTCL-8260HLW(14)

*Values in parentheses indicate holding time in days



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1852926-03B	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-03C	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-03D	Plastic 2oz unpreserved for TS	B	NA		4.8	Y	Absent		TS(7)
L1852926-03E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.8	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852926-03F	Glass 120ml/4oz unpreserved	B	NA		4.8	Y	Absent		HEXCR-7196(30)
L1852926-03G	Glass 500ml/16oz unpreserved	B	NA		4.8	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(14)
L1852926-04A	Vial MeOH preserved	A	NA		4.7	Y	Absent		NYTCL-8260HLW(14)
L1852926-04B	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-04C	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-04D	Plastic 2oz unpreserved for TS	A	NA		4.7	Y	Absent		TS(7)
L1852926-04E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.7	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852926-04F	Glass 120ml/4oz unpreserved	A	NA		4.7	Y	Absent		HEXCR-7196(30)
L1852926-04G	Glass 500ml/16oz unpreserved	A	NA		4.7	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(14)
L1852926-05A	Vial MeOH preserved	A	NA		4.7	Y	Absent		NYTCL-8260HLW(14)
L1852926-05B	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-05C	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-05D	Plastic 2oz unpreserved for TS	B	NA		4.8	Y	Absent		TS(7)
L1852926-05E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.8	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852926-05F	Glass 120ml/4oz unpreserved	B	NA		4.8	Y	Absent		HEXCR-7196(30)

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Serial_No:01041915:58
Lab Number: L1852926
Report Date: 01/04/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1852926-05G	Glass 500ml/16oz unpreserved	B	NA		4.8	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(14)
L1852926-06A	Vial MeOH preserved	A	NA		4.7	Y	Absent		NYTCL-8260HLW(14)
L1852926-06B	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-06C	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-06D	Plastic 2oz unpreserved for TS	A	NA		4.7	Y	Absent		TS(7)
L1852926-06E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.7	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852926-06F	Glass 120ml/4oz unpreserved	A	NA		4.7	Y	Absent		HEXCR-7196(30)
L1852926-06G	Glass 500ml/16oz unpreserved	A	NA		4.7	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(14)
L1852926-07A	Vial MeOH preserved	A	NA		4.7	Y	Absent		NYTCL-8260HLW(14)
L1852926-07B	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-07C	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-07D	Plastic 2oz unpreserved for TS	A	NA		4.7	Y	Absent		TS(7)
L1852926-07E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.7	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852926-07F	Glass 120ml/4oz unpreserved	A	NA		4.7	Y	Absent		HEXCR-7196(30)
L1852926-07G	Glass 500ml/16oz unpreserved	A	NA		4.7	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(14)
L1852926-08A	Vial MeOH preserved	A	NA		4.7	Y	Absent		NYTCL-8260HLW(14)
L1852926-08B	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-08C	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-08D	Plastic 2oz unpreserved for TS	B	NA		4.8	Y	Absent		TS(7)

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1852926

Project Number: 170487001

Report Date: 01/04/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1852926-08E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.8	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852926-08F	Glass 120ml/4oz unpreserved	B	NA		4.8	Y	Absent		HEXCR-7196(30)
L1852926-08G	Glass 500ml/16oz unpreserved	B	NA		4.8	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(14)
L1852926-09A	Vial MeOH preserved	A	NA		4.7	Y	Absent		NYTCL-8260HLW(14)
L1852926-09B	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-09C	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-09D	Plastic 2oz unpreserved for TS	B	NA		4.8	Y	Absent		TS(7)
L1852926-09E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.8	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852926-09F	Glass 120ml/4oz unpreserved	B	NA		4.8	Y	Absent		HEXCR-7196(30)
L1852926-09G	Glass 500ml/16oz unpreserved	B	NA		4.8	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(14)
L1852926-10A	Vial MeOH preserved	A	NA		4.7	Y	Absent		NYTCL-8260HLW(14)
L1852926-10B	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-10C	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-10D	Plastic 2oz unpreserved for TS	B	NA		4.8	Y	Absent		TS(7)
L1852926-10E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.8	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852926-10F	Glass 120ml/4oz unpreserved	B	NA		4.8	Y	Absent		HEXCR-7196(30)
L1852926-10G	Glass 500ml/16oz unpreserved	B	NA		4.8	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(14)
L1852926-11A	Vial MeOH preserved	A	NA		4.7	Y	Absent		NYTCL-8260HLW(14)

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1852926-11B	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-11C	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-11D	Plastic 2oz unpreserved for TS	B	NA		4.8	Y	Absent		TS(7)
L1852926-11E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		4.8	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852926-11F	Glass 120ml/4oz unpreserved	B	NA		4.8	Y	Absent		HEXCR-7196(30)
L1852926-11G	Glass 500ml/16oz unpreserved	B	NA		4.8	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(14)
L1852926-12A	Vial HCl preserved	A	NA		4.7	Y	Absent		NYTCL-8260(14)
L1852926-12B	Vial HCl preserved	A	NA		4.7	Y	Absent		NYTCL-8260(14)
L1852926-13A	Vial HCl preserved	A	NA		4.7	Y	Absent		NYTCL-8260(14)
L1852926-13B	Vial HCl preserved	A	NA		4.7	Y	Absent		NYTCL-8260(14)
L1852926-13C	Vial HCl preserved	A	NA		4.7	Y	Absent		NYTCL-8260(14)
L1852926-13D	Plastic 500ml HNO3 preserved	B	<2	<2	4.8	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852926-13E	Plastic 250ml NaOH preserved	B	7	7	4.8	Y	Absent		TCN-9010(14)
L1852926-13F	Plastic 500ml unpreserved	B	7	7	4.8	Y	Absent		HEXCR-7196(1)
L1852926-13G	Glass 120ml/4oz unpreserved	B	7	7	4.8	Y	Absent		NYTCL-8081(7)
L1852926-13H	Glass 120ml/4oz unpreserved	B	7	7	4.8	Y	Absent		NYTCL-8081(7)
L1852926-13I	Glass 120ml/4oz unpreserved	B	7	7	4.8	Y	Absent		NYTCL-8082-LVI(7)
L1852926-13J	Glass 120ml/4oz unpreserved	B	7	7	4.8	Y	Absent		NYTCL-8082-LVI(7)
L1852926-13K	Amber 250ml unpreserved	B	7	7	4.8	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1852926-13L	Amber 250ml unpreserved	B	7	7	4.8	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1852926-13M	Amber 1000ml unpreserved	B	7	7	4.8	Y	Absent		HERB-APA(7)
L1852926-13N	Amber 1000ml unpreserved	B	7	7	4.8	Y	Absent		HERB-APA(7)
L1852926-14A	Vial MeOH preserved	A	NA		4.7	Y	Absent		NYTCL-8260HLW(14)

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1852926**Project Number:** 170487001**Report Date:** 01/04/19**Container Information**

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1852926-14B	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-14C	Vial water preserved	A	NA		4.7	Y	Absent	22-DEC-18 05:34	NYTCL-8260HLW(14)
L1852926-14D	Plastic 2oz unpreserved for TS	A	NA		4.7	Y	Absent		TS(7)
L1852926-14E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		4.7	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1852926-14F	Glass 120ml/4oz unpreserved	A	NA		4.7	Y	Absent		HEXCR-7196(30)
L1852926-14G	Glass 500ml/16oz unpreserved	A	NA		4.7	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TRICR-CALC(30),NYTCL-8081(14),NYTCL-8082(14)

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

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Report Date: 01/04/19

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1852926
Report Date: 01/04/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	NEW YORK CHAIN OF CUSTODY Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page	Date Rec'd in Lab	ALPHA Job #																																																																																																																																																																							
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Form No: 01-25 HC (rev. 30-Sept-2013)			Relinquished By: <i>JL</i> Date/Time: 12/21/18-15:35		Received By: <i>Paula Manella</i> Date/Time: 12/21/18 15:35		Relinquished By: <i>Paula Manella</i> Date/Time: 12/22/18 00:35		Received By: <i>Wendy Storey</i> Date/Time: 12/22/18 01:35																																																																																																																																																																			

 NEW YORK CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page	Date Rec'd in Lab	ALPHA Job #										
		2 of 2	12/22/18	L1852926										
Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Project Information		Deliverables	Billing Information									
Project Name: Gerard Ave + E. 146th St. Project Location: Bronx, NY Project # 170487001		<input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQuIS (1 File) <input checked="" type="checkbox"/> EQuIS (4 File) <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Same as Client Info PO #										
Client Information		Regulatory Requirement		Disposal Site Information										
Client: Langan Engineering Address: 21 Penn Plaza, 360 W. 31st St 8th Fl., NY, NY 10001-2727 Phone: (212) 479-5400 Fax: (212) 479-5444 Email: jleung@langan.com		(Use Project name as Project #) <input type="checkbox"/> Project Manager: Julia Leung ALPHAQuote #: 7013 Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:										
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: Please also cc: datamanagement@langan.com and vzuluaga@langan.com Please specify Metals or TAL.		ANALYSIS		Sample Filtration										
				<input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)										
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52726-01	SODUPG1_122118	12/21/18	Soil	JD	X	X	X	X	X	X	X	X		
-12	SOTB01_122118		TB	JD	X									
-13	SOFB01_122118		FB	JD	X	X	X	X	X	X	X	X		
-14	RB04_18-20		soil	JD	X	X	X	X	X	X	X	X		
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative								Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)
Relinquished By:		Date/Time		Received By:		Date/Time								
[Signature]		12/21/18 - 15:35		[Signature]		12/21/18 15:35								
[Signature]		12/22/18 00:35		[Signature]		12/21/18 19:50								



ANALYTICAL REPORT

Lab Number:	L1853110
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	GERARD AVE + E. 146TH ST.
Project Number:	170487001
Report Date:	01/04/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1853110-01	RB03_17-18	SOIL	BRONX, NY	12/26/18 10:00	12/26/18

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The analyses performed were specified by the client.

Pesticides

L1853110-01: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

L1853110-01: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (0%) and decachlorobiphenyl (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Total Metals

L1853110-01: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

Cyanide, Total

The WG1193398-2/-3 LCS/LCSD recoveries (65%/65%), associated with L1853110-01, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

Hexavalent Chromium

The WG1193256-4 Insoluble MS recovery (0%), performed on L1853110-01, is below the acceptance criteria. The Soluble MS recovery (0%) was also below criteria. This has been attributed to matrix interference. A post-spike was performed with an acceptable recovery of 86%.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Amita Naik

Title: Technical Director/Representative

Date: 01/04/19

ORGANICS

VOLATILES

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853110-01
 Client ID: RB03_17-18
 Sample Location: BRONX, NY

Date Collected: 12/26/18 10:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/04/19 10:06
 Analyst: MV
 Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	310	140	1
1,1-Dichloroethane	ND		ug/kg	62	9.0	1
Chloroform	ND		ug/kg	93	8.6	1
Carbon tetrachloride	ND		ug/kg	62	14.	1
1,2-Dichloropropane	ND		ug/kg	62	7.7	1
Dibromochloromethane	ND		ug/kg	62	8.6	1
1,1,2-Trichloroethane	ND		ug/kg	62	16.	1
Tetrachloroethene	ND		ug/kg	31	12.	1
Chlorobenzene	ND		ug/kg	31	7.8	1
Trichlorofluoromethane	ND		ug/kg	250	43.	1
1,2-Dichloroethane	ND		ug/kg	62	16.	1
1,1,1-Trichloroethane	ND		ug/kg	31	10.	1
Bromodichloromethane	ND		ug/kg	31	6.7	1
trans-1,3-Dichloropropene	ND		ug/kg	62	17.	1
cis-1,3-Dichloropropene	ND		ug/kg	31	9.8	1
1,3-Dichloropropene, Total	ND		ug/kg	31	9.8	1
1,1-Dichloropropene	ND		ug/kg	31	9.8	1
Bromoform	ND		ug/kg	250	15.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	31	10.	1
Benzene	180		ug/kg	31	10.	1
Toluene	ND		ug/kg	62	34.	1
Ethylbenzene	97		ug/kg	62	8.7	1
Chloromethane	ND		ug/kg	250	58.	1
Bromomethane	ND		ug/kg	120	36.	1
Vinyl chloride	ND		ug/kg	62	21.	1
Chloroethane	ND		ug/kg	120	28.	1
1,1-Dichloroethene	ND		ug/kg	62	15.	1
trans-1,2-Dichloroethene	ND		ug/kg	93	8.5	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853110**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853110-01

Date Collected: 12/26/18 10:00

Client ID: RB03_17-18

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	31	8.5	1
1,2-Dichlorobenzene	ND		ug/kg	120	8.9	1
1,3-Dichlorobenzene	ND		ug/kg	120	9.1	1
1,4-Dichlorobenzene	ND		ug/kg	120	10.	1
Methyl tert butyl ether	ND		ug/kg	120	12.	1
p/m-Xylene	200		ug/kg	120	34.	1
o-Xylene	42	J	ug/kg	62	18.	1
Xylenes, Total	240	J	ug/kg	62	18.	1
cis-1,2-Dichloroethene	ND		ug/kg	62	11.	1
1,2-Dichloroethene, Total	ND		ug/kg	62	8.5	1
Dibromomethane	ND		ug/kg	120	15.	1
Styrene	ND		ug/kg	62	12.	1
Dichlorodifluoromethane	ND		ug/kg	620	56.	1
Acetone	ND		ug/kg	620	300	1
Carbon disulfide	ND		ug/kg	620	280	1
2-Butanone	ND		ug/kg	620	140	1
Vinyl acetate	ND		ug/kg	620	130	1
4-Methyl-2-pentanone	ND		ug/kg	620	79.	1
1,2,3-Trichloropropane	ND		ug/kg	120	7.8	1
2-Hexanone	ND		ug/kg	620	73.	1
Bromochloromethane	ND		ug/kg	120	13.	1
2,2-Dichloropropane	ND		ug/kg	120	12.	1
1,2-Dibromoethane	ND		ug/kg	62	17.	1
1,3-Dichloropropane	ND		ug/kg	120	10.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	31	8.2	1
Bromobenzene	ND		ug/kg	120	9.0	1
n-Butylbenzene	38	J	ug/kg	62	10.	1
sec-Butylbenzene	51	J	ug/kg	62	9.0	1
tert-Butylbenzene	ND		ug/kg	120	7.3	1
o-Chlorotoluene	ND		ug/kg	120	12.	1
p-Chlorotoluene	ND		ug/kg	120	6.7	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	180	62.	1
Hexachlorobutadiene	ND		ug/kg	250	10.	1
Isopropylbenzene	290		ug/kg	62	6.7	1
p-Isopropyltoluene	30	J	ug/kg	62	6.7	1
Naphthalene	1300		ug/kg	250	40.	1
Acrylonitrile	ND		ug/kg	250	71.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853110-01
 Client ID: RB03_17-18
 Sample Location: BRONX, NY

Date Collected: 12/26/18 10:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	390		ug/kg	62	10.	1
1,2,3-Trichlorobenzene	ND		ug/kg	120	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	120	17.	1
1,3,5-Trimethylbenzene	24	J	ug/kg	120	12.	1
1,2,4-Trimethylbenzene	710		ug/kg	120	21.	1
1,4-Dioxane	ND		ug/kg	6200	2200	1
p-Diethylbenzene	50	J	ug/kg	120	11.	1
p-Ethyltoluene	180		ug/kg	120	24.	1
1,2,4,5-Tetramethylbenzene	120		ug/kg	120	12.	1
Ethyl ether	ND		ug/kg	120	21.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	310	88.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	105		70-130

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/04/19 07:56
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1194817-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/04/19 07:56
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1194817-5					
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
 Analytical Date: 01/04/19 07:56
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1194817-5					
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	5000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	104		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1194817-3 WG1194817-4								
Methylene chloride	86		84		70-130	2		30
1,1-Dichloroethane	87		86		70-130	1		30
Chloroform	95		95		70-130	0		30
Carbon tetrachloride	100		100		70-130	0		30
1,2-Dichloropropane	87		88		70-130	1		30
Dibromochloromethane	93		94		70-130	1		30
1,1,2-Trichloroethane	91		92		70-130	1		30
Tetrachloroethene	97		94		70-130	3		30
Chlorobenzene	93		92		70-130	1		30
Trichlorofluoromethane	74		75		70-139	1		30
1,2-Dichloroethane	87		89		70-130	2		30
1,1,1-Trichloroethane	102		101		70-130	1		30
Bromodichloromethane	101		102		70-130	1		30
trans-1,3-Dichloropropene	98		97		70-130	1		30
cis-1,3-Dichloropropene	104		105		70-130	1		30
1,1-Dichloropropene	102		100		70-130	2		30
Bromoform	91		92		70-130	1		30
1,1,2,2-Tetrachloroethane	94		95		70-130	1		30
Benzene	96		95		70-130	1		30
Toluene	93		91		70-130	2		30
Ethylbenzene	95		94		70-130	1		30
Chloromethane	71		68		52-130	4		30
Bromomethane	57		56	Q	57-147	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1194817-3 WG1194817-4								
Vinyl chloride	70		70		67-130	0		30
Chloroethane	56		55		50-151	2		30
1,1-Dichloroethene	99		97		65-135	2		30
trans-1,2-Dichloroethene	98		96		70-130	2		30
Trichloroethene	98		98		70-130	0		30
1,2-Dichlorobenzene	90		89		70-130	1		30
1,3-Dichlorobenzene	91		90		70-130	1		30
1,4-Dichlorobenzene	90		89		70-130	1		30
Methyl tert butyl ether	101		103		66-130	2		30
p/m-Xylene	94		93		70-130	1		30
o-Xylene	97		95		70-130	2		30
cis-1,2-Dichloroethene	98		98		70-130	0		30
Dibromomethane	98		100		70-130	2		30
Styrene	87		87		70-130	0		30
Dichlorodifluoromethane	91		88		30-146	3		30
Acetone	109		101		54-140	8		30
Carbon disulfide	91		89		59-130	2		30
2-Butanone	80		93		70-130	15		30
Vinyl acetate	88		92		70-130	4		30
4-Methyl-2-pentanone	86		88		70-130	2		30
1,2,3-Trichloropropane	88		91		68-130	3		30
2-Hexanone	94		94		70-130	0		30
Bromochloromethane	98		99		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1194817-3 WG1194817-4								
2,2-Dichloropropane	103		102		70-130	1		30
1,2-Dibromoethane	96		97		70-130	1		30
1,3-Dichloropropane	94		94		69-130	0		30
1,1,1,2-Tetrachloroethane	96		96		70-130	0		30
Bromobenzene	93		92		70-130	1		30
n-Butylbenzene	94		92		70-130	2		30
sec-Butylbenzene	96		93		70-130	3		30
tert-Butylbenzene	96		94		70-130	2		30
o-Chlorotoluene	94		94		70-130	0		30
p-Chlorotoluene	96		96		70-130	0		30
1,2-Dibromo-3-chloropropane	95		98		68-130	3		30
Hexachlorobutadiene	92		89		67-130	3		30
Isopropylbenzene	97		95		70-130	2		30
p-Isopropyltoluene	96		94		70-130	2		30
Naphthalene	94		95		70-130	1		30
Acrylonitrile	75		78		70-130	4		30
n-Propylbenzene	94		92		70-130	2		30
1,2,3-Trichlorobenzene	92		92		70-130	0		30
1,2,4-Trichlorobenzene	93		92		70-130	1		30
1,3,5-Trimethylbenzene	96		95		70-130	1		30
1,2,4-Trimethylbenzene	97		95		70-130	2		30
1,4-Dioxane	90		94		65-136	4		30
p-Diethylbenzene	95		93		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853110

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1194817-3 WG1194817-4								
p-Ethyltoluene	100		98		70-130	2		30
1,2,4,5-Tetramethylbenzene	96		95		70-130	1		30
Ethyl ether	75		76		67-130	1		30
trans-1,4-Dichloro-2-butene	85		87		70-130	2		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	95		97		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	111		111		70-130
Dibromofluoromethane	102		104		70-130

SEMIVOLATILES

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853110**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853110-01 D

Date Collected: 12/26/18 10:00

Client ID: RB03_17-18

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8270D

Extraction Date: 12/27/18 18:36

Analytical Date: 12/31/18 19:37

Analyst: JG

Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	1900		ug/kg	330	42.	2
1,2,4-Trichlorobenzene	ND		ug/kg	410	47.	2
Hexachlorobenzene	ND		ug/kg	250	46.	2
Bis(2-chloroethyl)ether	ND		ug/kg	370	56.	2
2-Chloronaphthalene	ND		ug/kg	410	41.	2
1,2-Dichlorobenzene	ND		ug/kg	410	74.	2
1,3-Dichlorobenzene	ND		ug/kg	410	70.	2
1,4-Dichlorobenzene	ND		ug/kg	410	72.	2
3,3'-Dichlorobenzidine	ND		ug/kg	410	110	2
2,4-Dinitrotoluene	ND		ug/kg	410	82.	2
2,6-Dinitrotoluene	ND		ug/kg	410	70.	2
Fluoranthene	12000		ug/kg	250	47.	2
4-Chlorophenyl phenyl ether	ND		ug/kg	410	44.	2
4-Bromophenyl phenyl ether	ND		ug/kg	410	62.	2
Bis(2-chloroisopropyl)ether	ND		ug/kg	490	70.	2
Bis(2-chloroethoxy)methane	ND		ug/kg	440	41.	2
Hexachlorobutadiene	ND		ug/kg	410	60.	2
Hexachlorocyclopentadiene	ND		ug/kg	1200	370	2
Hexachloroethane	ND		ug/kg	330	66.	2
Isophorone	ND		ug/kg	370	53.	2
Naphthalene	2200		ug/kg	410	50.	2
Nitrobenzene	ND		ug/kg	370	61.	2
NDPA/DPA	ND		ug/kg	330	47.	2
n-Nitrosodi-n-propylamine	ND		ug/kg	410	63.	2
Bis(2-ethylhexyl)phthalate	180	J	ug/kg	410	140	2
Butyl benzyl phthalate	ND		ug/kg	410	100	2
Di-n-butylphthalate	ND		ug/kg	410	78.	2
Di-n-octylphthalate	ND		ug/kg	410	140	2

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853110**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853110-01 D

Date Collected: 12/26/18 10:00

Client ID: RB03_17-18

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	410	38.	2
Dimethyl phthalate	ND		ug/kg	410	86.	2
Benzo(a)anthracene	3500		ug/kg	250	46.	2
Benzo(a)pyrene	4700		ug/kg	330	100	2
Benzo(b)fluoranthene	4000		ug/kg	250	69.	2
Benzo(k)fluoranthene	1100		ug/kg	250	66.	2
Chrysene	3200		ug/kg	250	43.	2
Acenaphthylene	1700		ug/kg	330	63.	2
Anthracene	1500		ug/kg	250	80.	2
Benzo(ghi)perylene	4100		ug/kg	330	48.	2
Fluorene	1200		ug/kg	410	40.	2
Phenanthrene	1400		ug/kg	250	50.	2
Dibenzo(a,h)anthracene	310		ug/kg	250	47.	2
Indeno(1,2,3-cd)pyrene	3000		ug/kg	330	57.	2
Pyrene	16000		ug/kg	250	41.	2
Biphenyl	390	J	ug/kg	940	95.	2
4-Chloroaniline	ND		ug/kg	410	75.	2
2-Nitroaniline	ND		ug/kg	410	79.	2
3-Nitroaniline	ND		ug/kg	410	77.	2
4-Nitroaniline	ND		ug/kg	410	170	2
Dibenzofuran	170	J	ug/kg	410	39.	2
2-Methylnaphthalene	200	J	ug/kg	490	50.	2
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	410	43.	2
Acetophenone	ND		ug/kg	410	51.	2
2,4,6-Trichlorophenol	ND		ug/kg	250	78.	2
p-Chloro-m-cresol	ND		ug/kg	410	61.	2
2-Chlorophenol	ND		ug/kg	410	48.	2
2,4-Dichlorophenol	ND		ug/kg	370	66.	2
2,4-Dimethylphenol	ND		ug/kg	410	140	2
2-Nitrophenol	ND		ug/kg	890	150	2
4-Nitrophenol	ND		ug/kg	570	170	2
2,4-Dinitrophenol	ND		ug/kg	2000	190	2
4,6-Dinitro-o-cresol	ND		ug/kg	1100	200	2
Pentachlorophenol	ND		ug/kg	330	90.	2
Phenol	ND		ug/kg	410	62.	2
2-Methylphenol	ND		ug/kg	410	64.	2
3-Methylphenol/4-Methylphenol	ND		ug/kg	590	64.	2

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853110-01 D
 Client ID: RB03_17-18
 Sample Location: BRONX, NY

Date Collected: 12/26/18 10:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	410	78.	2
Benzoic Acid	ND		ug/kg	1300	420	2
Benzyl Alcohol	ND		ug/kg	410	120	2
Carbazole	170	J	ug/kg	410	40.	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	83		25-120
Phenol-d6	81		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	82		10-136
4-Terphenyl-d14	74		18-120

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 12/28/18 09:42
 Analyst: JG

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 14:25

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1193175-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	98	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	28.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	98	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	17.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	56.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/28/18 09:42
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 12/27/18 14:25

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1193175-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	28.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	61.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 12/28/18 09:42
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 12/27/18 14:25

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG1193175-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	780	76.
4,6-Dinitro-o-cresol	ND		ug/kg	420	78.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	530	160
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	89		25-120
Phenol-d6	91		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	85		30-120
2,4,6-Tribromophenol	83		10-136
4-Terphenyl-d14	89		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1193175-2 WG1193175-3								
Acenaphthene	80		82		31-137	2		50
1,2,4-Trichlorobenzene	82		88		38-107	7		50
Hexachlorobenzene	83		83		40-140	0		50
Bis(2-chloroethyl)ether	78		84		40-140	7		50
2-Chloronaphthalene	90		92		40-140	2		50
1,2-Dichlorobenzene	76		84		40-140	10		50
1,3-Dichlorobenzene	75		83		40-140	10		50
1,4-Dichlorobenzene	75		83		28-104	10		50
3,3'-Dichlorobenzidine	53		50		40-140	6		50
2,4-Dinitrotoluene	93		91		40-132	2		50
2,6-Dinitrotoluene	99		97		40-140	2		50
Fluoranthene	95		93		40-140	2		50
4-Chlorophenyl phenyl ether	83		82		40-140	1		50
4-Bromophenyl phenyl ether	86		84		40-140	2		50
Bis(2-chloroisopropyl)ether	80		83		40-140	4		50
Bis(2-chloroethoxy)methane	86		89		40-117	3		50
Hexachlorobutadiene	80		88		40-140	10		50
Hexachlorocyclopentadiene	81		86		40-140	6		50
Hexachloroethane	75		84		40-140	11		50
Isophorone	88		89		40-140	1		50
Naphthalene	82		86		40-140	5		50
Nitrobenzene	82		86		40-140	5		50
NDPA/DPA	87		85		36-157	2		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1193175-2 WG1193175-3								
n-Nitrosodi-n-propylamine	85		88		32-121	3		50
Bis(2-ethylhexyl)phthalate	97		93		40-140	4		50
Butyl benzyl phthalate	100		97		40-140	3		50
Di-n-butylphthalate	99		96		40-140	3		50
Di-n-octylphthalate	100		94		40-140	6		50
Diethyl phthalate	86		84		40-140	2		50
Dimethyl phthalate	95		93		40-140	2		50
Benzo(a)anthracene	90		88		40-140	2		50
Benzo(a)pyrene	95		93		40-140	2		50
Benzo(b)fluoranthene	91		90		40-140	1		50
Benzo(k)fluoranthene	92		88		40-140	4		50
Chrysene	86		86		40-140	0		50
Acenaphthylene	93		92		40-140	1		50
Anthracene	92		93		40-140	1		50
Benzo(ghi)perylene	91		88		40-140	3		50
Fluorene	82		83		40-140	1		50
Phenanthrene	89		90		40-140	1		50
Dibenzo(a,h)anthracene	92		89		40-140	3		50
Indeno(1,2,3-cd)pyrene	95		91		40-140	4		50
Pyrene	93		91		35-142	2		50
Biphenyl	95		96		54-104	1		50
4-Chloroaniline	58		50		40-140	15		50
2-Nitroaniline	104		102		47-134	2		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1193175-2 WG1193175-3								
3-Nitroaniline	62		62		26-129	0		50
4-Nitroaniline	86		86		41-125	0		50
Dibenzofuran	81		82		40-140	1		50
2-Methylnaphthalene	88		91		40-140	3		50
1,2,4,5-Tetrachlorobenzene	91		93		40-117	2		50
Acetophenone	90		94		14-144	4		50
2,4,6-Trichlorophenol	102		100		30-130	2		50
p-Chloro-m-cresol	100		100		26-103	0		50
2-Chlorophenol	89		94		25-102	5		50
2,4-Dichlorophenol	97		98		30-130	1		50
2,4-Dimethylphenol	96		96		30-130	0		50
2-Nitrophenol	95		98		30-130	3		50
4-Nitrophenol	93		90		11-114	3		50
2,4-Dinitrophenol	76		75		4-130	1		50
4,6-Dinitro-o-cresol	84		83		10-130	1		50
Pentachlorophenol	87		83		17-109	5		50
Phenol	90		93	Q	26-90	3		50
2-Methylphenol	94		96		30-130.	2		50
3-Methylphenol/4-Methylphenol	95		95		30-130	0		50
2,4,5-Trichlorophenol	104		99		30-130	5		50
Benzoic Acid	35		21		10-110	50		50
Benzyl Alcohol	90		94		40-140	4		50
Carbazole	95		94		54-128	1		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG1193175-2 WG1193175-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	84		89		25-120
Phenol-d6	90		91		10-120
Nitrobenzene-d5	82		85		23-120
2-Fluorobiphenyl	88		87		30-120
2,4,6-Tribromophenol	86		83		10-136
4-Terphenyl-d14	89		86		18-120

PCBS

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853110-01
 Client ID: RB03_17-18
 Sample Location: BRONX, NY

Date Collected: 12/26/18 10:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 18:21
 Analyst: HT
 Percent Solids: 80%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 18:42
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/29/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/30/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	40.4	3.58	1	A
Aroclor 1221	ND		ug/kg	40.4	4.05	1	A
Aroclor 1232	ND		ug/kg	40.4	8.56	1	A
Aroclor 1242	ND		ug/kg	40.4	5.44	1	A
Aroclor 1248	ND		ug/kg	40.4	6.06	1	A
Aroclor 1254	ND		ug/kg	40.4	4.42	1	A
Aroclor 1260	ND		ug/kg	40.4	7.46	1	A
Aroclor 1262	ND		ug/kg	40.4	5.13	1	A
Aroclor 1268	ND		ug/kg	40.4	4.18	1	A
PCBs, Total	ND		ug/kg	40.4	3.58	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	37		30-150	A
2,4,5,6-Tetrachloro-m-xylene	58		30-150	B
Decachlorobiphenyl	48		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8082A
Analytical Date: 12/30/18 17:01
Analyst: AWS

Extraction Method: EPA 3546
Extraction Date: 12/27/18 06:08
Cleanup Method: EPA 3665A
Cleanup Date: 12/27/18
Cleanup Method: EPA 3660B
Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG1192973-1						
Aroclor 1016	ND		ug/kg	32.5	2.88	A
Aroclor 1221	ND		ug/kg	32.5	3.25	A
Aroclor 1232	ND		ug/kg	32.5	6.88	A
Aroclor 1242	ND		ug/kg	32.5	4.38	A
Aroclor 1248	ND		ug/kg	32.5	4.87	A
Aroclor 1254	ND		ug/kg	32.5	3.55	A
Aroclor 1260	ND		ug/kg	32.5	6.00	A
Aroclor 1262	ND		ug/kg	32.5	4.12	A
Aroclor 1268	ND		ug/kg	32.5	3.36	A
PCBs, Total	ND		ug/kg	32.5	2.88	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	71		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG1192973-2 WG1192973-3									
Aroclor 1016	75		79		40-140	5		50	A
Aroclor 1260	69		71		40-140	3		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		79		30-150	A
Decachlorobiphenyl	71		75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	84		83		30-150	B
Decachlorobiphenyl	75		76		30-150	B

PESTICIDES

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853110-01
 Client ID: RB03_17-18
 Sample Location: BRONX, NY

Date Collected: 12/26/18 10:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 21:47
 Analyst: DGM
 Percent Solids: 80%
 Methylation Date: 12/28/18 08:43

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	204	12.8	1	A
2,4,5-T	ND		ug/kg	204	6.31	1	A
2,4,5-TP (Silvex)	ND		ug/kg	204	5.41	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	109		30-150	A
DCAA	112		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853110-01 D
 Client ID: RB03_17-18
 Sample Location: BRONX, NY

Date Collected: 12/26/18 10:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/04/19 10:07
 Analyst: KEG
 Percent Solids: 80%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 18:39
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	37.9	7.42	20	A
Lindane	ND		ug/kg	15.8	7.06	20	A
Alpha-BHC	ND		ug/kg	15.8	4.48	20	A
Beta-BHC	ND		ug/kg	37.9	14.4	20	A
Heptachlor	ND		ug/kg	19.0	8.50	20	A
Aldrin	ND		ug/kg	37.9	13.3	20	A
Heptachlor epoxide	ND		ug/kg	71.1	21.3	20	A
Endrin	ND		ug/kg	15.8	6.48	20	A
Endrin aldehyde	ND		ug/kg	47.4	16.6	20	A
Endrin ketone	ND		ug/kg	37.9	9.76	20	A
Dieldrin	ND		ug/kg	23.7	11.8	20	A
4,4'-DDE	ND		ug/kg	37.9	8.76	20	A
4,4'-DDD	ND		ug/kg	37.9	13.5	20	A
4,4'-DDT	ND		ug/kg	71.1	30.5	20	A
Endosulfan I	ND		ug/kg	37.9	8.96	20	A
Endosulfan II	ND		ug/kg	37.9	12.7	20	A
Endosulfan sulfate	ND		ug/kg	15.8	7.52	20	A
Methoxychlor	ND		ug/kg	71.1	22.1	20	A
Toxaphene	ND		ug/kg	711	199.	20	A
cis-Chlordane	ND		ug/kg	47.4	13.2	20	A
trans-Chlordane	ND		ug/kg	47.4	12.5	20	A
Chlordane	ND		ug/kg	308	126.	20	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853110-01 D
 Client ID: RB03_17-18
 Sample Location: BRONX, NY

Date Collected: 12/26/18 10:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
 Analytical Date: 12/28/18 11:37
 Analyst: JB

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 13:10
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1193145-1						
Delta-BHC	ND		ug/kg	1.58	0.310	A
Lindane	ND		ug/kg	0.659	0.295	A
Alpha-BHC	ND		ug/kg	0.659	0.187	A
Beta-BHC	ND		ug/kg	1.58	0.600	A
Heptachlor	ND		ug/kg	0.791	0.355	A
Aldrin	ND		ug/kg	1.58	0.557	A
Heptachlor epoxide	ND		ug/kg	2.97	0.890	A
Endrin	ND		ug/kg	0.659	0.270	A
Endrin aldehyde	ND		ug/kg	1.98	0.692	A
Endrin ketone	ND		ug/kg	1.58	0.407	A
Dieldrin	ND		ug/kg	0.989	0.494	A
4,4'-DDE	ND		ug/kg	1.58	0.366	A
4,4'-DDD	ND		ug/kg	1.58	0.564	A
4,4'-DDT	ND		ug/kg	2.97	1.27	A
Endosulfan I	ND		ug/kg	1.58	0.374	A
Endosulfan II	ND		ug/kg	1.58	0.529	A
Endosulfan sulfate	ND		ug/kg	0.659	0.314	A
Methoxychlor	ND		ug/kg	2.97	0.923	A
Toxaphene	ND		ug/kg	29.7	8.30	A
cis-Chlordane	ND		ug/kg	1.98	0.551	A
trans-Chlordane	ND		ug/kg	1.98	0.522	A
Chlordane	ND		ug/kg	12.8	5.24	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 12/28/18 11:37
 Analyst: JB

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 13:10
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG1193145-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		30-150	B
Decachlorobiphenyl	86		30-150	B
2,4,5,6-Tetrachloro-m-xylene	90		30-150	A
Decachlorobiphenyl	111		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8151A
 Analytical Date: 12/31/18 06:23
 Analyst: KEG

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:06

Methylation Date: 12/28/18 08:43

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01 Batch: WG1193211-1						
2,4-D	ND		ug/kg	164	10.3	A
2,4,5-T	ND		ug/kg	164	5.07	A
2,4,5-TP (Silvex)	ND		ug/kg	164	4.35	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	93		30-150	A
DCAA	89		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1193145-2 WG1193145-3									
Delta-BHC	100		108		30-150	8		30	A
Lindane	99		106		30-150	7		30	A
Alpha-BHC	107		106		30-150	1		30	A
Beta-BHC	88		95		30-150	8		30	A
Heptachlor	96		105		30-150	9		30	A
Aldrin	92		102		30-150	10		30	A
Heptachlor epoxide	103		114		30-150	10		30	A
Endrin	106		115		30-150	8		30	A
Endrin aldehyde	86		93		30-150	8		30	A
Endrin ketone	120		121		30-150	1		30	A
Dieldrin	111		121		30-150	9		30	A
4,4'-DDE	92		98		30-150	6		30	A
4,4'-DDD	103		116		30-150	12		30	A
4,4'-DDT	101		117		30-150	15		30	A
Endosulfan I	91		98		30-150	7		30	A
Endosulfan II	103		113		30-150	9		30	A
Endosulfan sulfate	98		97		30-150	1		30	A
Methoxychlor	104		107		30-150	3		30	A
cis-Chlordane	68		73		30-150	7		30	A
trans-Chlordane	76		70		30-150	8		30	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1193145-2 WG1193145-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	83		87		30-150	B
Decachlorobiphenyl	88		91		30-150	B
2,4,5,6-Tetrachloro-m-xylene	89		92		30-150	A
Decachlorobiphenyl	114		116		30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01 Batch: WG1193211-2 WG1193211-3									
2,4-D	116		131		30-150	12		30	A
2,4,5-T	95		94		30-150	1		30	A
2,4,5-TP (Silvex)	82		82		30-150	0		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	97		100		30-150	A
DCAA	100		106		30-150	B

METALS

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853110**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853110-01

Date Collected: 12/26/18 10:00

Client ID: RB03_17-18

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5640		mg/kg	9.47	2.56	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.74	0.360	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Arsenic, Total	2.73		mg/kg	0.947	0.197	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Barium, Total	56.4		mg/kg	0.947	0.165	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Beryllium, Total	0.152	J	mg/kg	0.474	0.031	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Cadmium, Total	0.322	J	mg/kg	0.947	0.093	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Calcium, Total	6470		mg/kg	9.47	3.32	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Chromium, Total	17.1		mg/kg	0.947	0.091	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Cobalt, Total	6.08		mg/kg	1.89	0.157	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Copper, Total	20.5		mg/kg	0.947	0.244	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Iron, Total	11800		mg/kg	4.74	0.855	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Lead, Total	97.1		mg/kg	4.74	0.254	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Magnesium, Total	2770		mg/kg	9.47	1.46	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Manganese, Total	295		mg/kg	0.947	0.151	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Mercury, Total	0.716		mg/kg	0.078	0.017	1	12/28/18 06:00	01/03/19 21:00	EPA 7471B	1,7471B	EA
Nickel, Total	31.0		mg/kg	2.37	0.229	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Potassium, Total	1290		mg/kg	237	13.6	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Selenium, Total	0.606	J	mg/kg	1.89	0.244	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.947	0.268	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Sodium, Total	149	J	mg/kg	189	2.98	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.89	0.298	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Vanadium, Total	16.7		mg/kg	0.947	0.192	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
Zinc, Total	64.8		mg/kg	4.74	0.278	2	12/28/18 17:48	12/29/18 04:58	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	17		mg/kg	1.0	1.0	1		12/29/18 04:58	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1193349-1									
Mercury, Total	ND	mg/kg	0.083	0.018	1	12/28/18 06:00	01/03/19 20:33	1,7471B	EA

Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
Total Metals - Mansfield Lab for sample(s): 01 Batch: WG1193639-1										
Aluminum, Total	ND	mg/kg	4.00	1.08	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Antimony, Total	ND	mg/kg	2.00	0.152	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Arsenic, Total	ND	mg/kg	0.400	0.083	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Barium, Total	ND	mg/kg	0.400	0.070	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Beryllium, Total	ND	mg/kg	0.200	0.013	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Cadmium, Total	ND	mg/kg	0.400	0.039	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Calcium, Total	ND	mg/kg	4.00	1.40	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Chromium, Total	ND	mg/kg	0.400	0.038	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Cobalt, Total	ND	mg/kg	0.800	0.066	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Copper, Total	ND	mg/kg	0.400	0.103	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Iron, Total	ND	mg/kg	2.00	0.361	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Lead, Total	ND	mg/kg	2.00	0.107	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Magnesium, Total	ND	mg/kg	4.00	0.616	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Manganese, Total	ND	mg/kg	0.400	0.064	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Nickel, Total	ND	mg/kg	1.00	0.097	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Potassium, Total	ND	mg/kg	100	5.76	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Selenium, Total	ND	mg/kg	0.800	0.103	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Silver, Total	ND	mg/kg	0.400	0.113	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Sodium, Total	1.49	J	mg/kg	80.0	1.26	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC
Thallium, Total	ND	mg/kg	0.800	0.126	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Vanadium, Total	ND	mg/kg	0.400	0.081	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Zinc, Total	ND	mg/kg	2.00	0.117	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1193349-2 SRM Lot Number: D102-540								
Mercury, Total	114		-		65-134	-		



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1193639-2 SRM Lot Number: D102-540					
Aluminum, Total	67	-	49-150	-	
Antimony, Total	148	-	1-199	-	
Arsenic, Total	90	-	83-117	-	
Barium, Total	86	-	83-118	-	
Beryllium, Total	89	-	83-116	-	
Cadmium, Total	98	-	83-118	-	
Calcium, Total	86	-	82-118	-	
Chromium, Total	85	-	83-117	-	
Cobalt, Total	88	-	84-116	-	
Copper, Total	85	-	84-116	-	
Iron, Total	83	-	61-139	-	
Lead, Total	86	-	82-118	-	
Magnesium, Total	77	-	76-124	-	
Manganese, Total	88	-	82-118	-	
Nickel, Total	89	-	83-117	-	
Potassium, Total	76	-	70-130	-	
Selenium, Total	90	-	79-121	-	
Silver, Total	86	-	80-120	-	
Sodium, Total	94	-	74-126	-	
Thallium, Total	95	-	81-119	-	
Vanadium, Total	84	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1193639-2 SRM Lot Number: D102-540					
Zinc, Total	87	-	81-118	-	

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1193349-3 WG1193349-4 QC Sample: L1853088-01 Client ID: MS Sample												
Mercury, Total	13.2	0.148	11.7	0	Q	13.3	68	Q	80-120	13		20

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits		
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1193639-3 WG1193639-4 QC Sample: L1853234-03 Client ID: MS Sample											
Aluminum, Total	13200	265	14700	566	Q	14000	304	Q	75-125	5	20
Antimony, Total	ND	66.2	50.8	77		49.4	75		75-125	3	20
Arsenic, Total	6.94	15.9	21.7	93		21.2	90		75-125	2	20
Barium, Total	28.4	265	268	90		251	85		75-125	7	20
Beryllium, Total	0.516J	6.62	6.45	97		6.17	94		75-125	4	20
Cadmium, Total	0.503J	6.76	6.30	93		6.09	91		75-125	3	20
Calcium, Total	2740	1320	3520	59	Q	3310	43	Q	75-125	6	20
Chromium, Total	28.8	26.5	52.5	89		50.8	84		75-125	3	20
Cobalt, Total	9.66	66.2	64.3	82		61.6	79		75-125	4	20
Copper, Total	12.5	33.1	39.3	81		35.9	71	Q	75-125	9	20
Iron, Total	26800	132	28800	1510	Q	27900	836	Q	75-125	3	20
Lead, Total	23.5	67.6	69.2	68	Q	66.5	64	Q	75-125	4	20
Magnesium, Total	6200	1320	7600	106		7270	81		75-125	4	20
Manganese, Total	349	66.2	405	84		386	56	Q	75-125	5	20
Nickel, Total	20.2	66.2	75.0	83		71.6	78		75-125	5	20
Potassium, Total	2880	1320	4550	126	Q	4150	96		75-125	9	20
Selenium, Total	1.06J	15.9	14.6	92		13.7	87		75-125	6	20
Silver, Total	ND	39.7	36.3	91		35.1	89		75-125	3	20
Sodium, Total	701	1320	1890	90		1820	85		75-125	4	20
Thallium, Total	ND	15.9	12.0	75		11.8	75		75-125	2	20
Vanadium, Total	36.3	66.2	96.8	91		92.8	86		75-125	4	20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1193639-3 WG1193639-4 QC Sample: L1853234-03 Client ID: MS Sample									
Zinc, Total	69.5	66.2	122	79	117	72	Q 75-125	4	20

INORGANICS & MISCELLANEOUS

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853110-01

Date Collected: 12/26/18 10:00

Client ID: RB03_17-18

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.4		%	0.100	NA	1	-	12/28/18 09:25	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	12/28/18 13:10	01/02/19 11:10	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.995	0.199	1	12/27/18 17:50	12/28/18 18:50	1,7196A	AJ



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853110

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1193256-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	12/27/18 17:50	12/28/18 18:50	1,7196A	AJ
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG1193398-1										
Cyanide, Total	ND		mg/kg	0.89	0.19	1	12/28/18 13:10	01/02/19 11:01	1,9010C/9012B	LH

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853110

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1193256-2								
Chromium, Hexavalent	100		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG1193398-2 WG1193398-3								
Cyanide, Total	65	Q	65	Q	80-120	11		35

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1193256-4 QC Sample: L1853110-01 Client ID: RB03_17-18												
Chromium, Hexavalent	ND	1280	ND	0	Q	-	-		75-125	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1193398-4 WG1193398-5 QC Sample: L1853252-01 Client ID: MS Sample												
Cyanide, Total	ND	10	11	100		7.5	69	Q	75-125	38	Q	35

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853110

Report Date: 01/04/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1193256-6 QC Sample: L1853110-01 Client ID: RB03_17-18						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1193437-2 QC Sample: L1853249-02 Client ID: DUP Sample						
Solids, Total	89.7	89.6	%	0		20

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Serial_No:01041915:09
Lab Number: L1853110
Report Date: 01/04/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1853110-01A	Vial MeOH preserved	A	NA		2.4	Y	Absent		NYTCL-8260HLW(14)
L1853110-01B	Vial water preserved	A	NA		2.4	Y	Absent	27-DEC-18 05:33	NYTCL-8260HLW(14)
L1853110-01C	Vial water preserved	A	NA		2.4	Y	Absent	27-DEC-18 05:33	NYTCL-8260HLW(14)
L1853110-01D	Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853110-01E	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L1853110-01F	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853110-01G	Glass 500ml/16oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

*Values in parentheses indicate holding time in days



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
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Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853110
Report Date: 01/04/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water


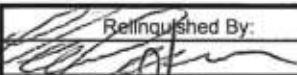
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	NEW YORK CHAIN OF CUSTODY Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3268	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 1	Date Rec'd in Lab 12/26/18	ALPHA Job # L1853110																								
		Project Information Project Name: Gerard Ave + E. 146th St. Project Location: Bronx, NY Project # 170487001 (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUS (1 File) <input checked="" type="checkbox"/> EQUS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PD #																							
Client Information Client: Langan Engineering Address: 21 Penn Plaza, 360 W. 31st St 8th Fl., NY, NY 10001-2727 Phone: (212) 479-5400 Fax: (212) 479-5444 Email: jleung@langan.com		Project Manager: Julia Leung ALPHAQuote #: 703 Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:																							
These samples have been previously analyzed by Alpha <input type="checkbox"/>						ANALYSIS						Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)		Total Bottles															
Other project specific requirements/comments: Please also cc: datamanagement@langan.com and vzuluaga@langan.com Please specify Metals or TAL.						<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <tr> <th style="writing-mode: vertical-rl; text-orientation: mixed;">Part 375/TCL VOCs</th> <th style="writing-mode: vertical-rl; text-orientation: mixed;">Part 375/TCL SVOCs</th> <th style="writing-mode: vertical-rl; text-orientation: mixed;">Part 375/TCL PCBs</th> <th style="writing-mode: vertical-rl; text-orientation: mixed;">Pesticides</th> <th style="writing-mode: vertical-rl; text-orientation: mixed;">Herbicides</th> <th style="writing-mode: vertical-rl; text-orientation: mixed;">TAL Metals</th> <th style="writing-mode: vertical-rl; text-orientation: mixed;">Hex Chromium</th> <th style="writing-mode: vertical-rl; text-orientation: mixed;">Total cyanide</th> </tr> <tr> <td>x</td> <td>x</td> <td>x</td> <td>x</td> <td>x</td> <td>x</td> <td>x</td> <td>x</td> </tr> </table>						Part 375/TCL VOCs	Part 375/TCL SVOCs		Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hex Chromium	Total cyanide	x	x	x	x	x	x	x	x	Sample Specific Comments HOLD ANALYSES
Part 375/TCL VOCs	Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hex Chromium	Total cyanide																						
x	x	x	x	x	x	x	x																						
ALPHA Lab ID (Lab Use Only) 53110 -01		Sample ID RB03-17-18		Collection Date: 12/26/18 Time: 10:00		Sample Matrix S		Sampler's Initials VZ		Container Type V A A A A A A A		Preservative F A A A A A A A		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)															
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Relinquished By:  Date/Time: 12/26/18 1522		Received By: Ramek Jackson Date/Time: 12/26/18 1900		Relinquished By: D. Santos Date/Time: 12/26/18 2230		Received By: [Signature] Date/Time: 12/26/18 2230																	



ANALYTICAL REPORT

Lab Number:	L1853111
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	GERARD AVE + E. 146TH ST.
Project Number:	170487001
Report Date:	01/04/19

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1853111-01	RB03_0-2	SOIL	BRONX, NY	12/26/18 09:45	12/26/18
L1853111-02	RB03_2-3	SOIL	BRONX, NY	12/26/18 09:50	12/26/18
L1853111-03	RB03_10-12	SOIL	BRONX, NY	12/26/18 09:55	12/26/18
L1853111-04	RB12_0-2	SOIL	BRONX, NY	12/26/18 11:55	12/26/18
L1853111-05	RB12_8-9	SOIL	BRONX, NY	12/26/18 12:00	12/26/18
L1853111-06	RB12_9-10	SOIL	BRONX, NY	12/26/18 12:05	12/26/18
L1853111-07	RB12_10-12	SOIL	BRONX, NY	12/26/18 12:10	12/26/18
L1853111-08	RB02_0-2	SOIL	BRONX, NY	12/26/18 13:25	12/26/18
L1853111-09	RB02_7-9	SOIL	BRONX, NY	12/26/18 13:30	12/26/18
L1853111-10	RB02_10-12	SOIL	BRONX, NY	12/26/18 13:35	12/26/18
L1853111-11	RB02_13-15	SOIL	BRONX, NY	12/26/18 13:40	12/26/18
L1853111-12	SOTB02_122618	WATER	BRONX, NY	12/26/18 00:00	12/26/18

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The analyses performed were specified by the client.

Volatile Organics

L1853111-01: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (158%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

L1853111-02: The internal standard (IS) response(s) for 1,4-dichlorobenzene-d4 (44%) and the surrogate recovery for 4-bromofluorobenzene (133%) were outside the acceptance criteria; however, re-analysis achieved similar results: 1,4-dichlorobenzene-d4 (47%) and 4-bromofluorobenzene (141%). The results of both analyses are reported; however, since the IS response was below method criteria, all associated compounds and surrogate recoveries are considered to have a potentially high.

L1853111-04: The analysis of Volatile Organics by EPA Method 5035/8260 Low Level could not be performed due to the elevated concentrations of non-target compounds in the sample.

L1853111-05: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

L1853111-05: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (146%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

Semivolatile Organics

L1853111-01, -02, -03, -04, -05, -08, -09 and -10: The sample has elevated detection limits due to the dilution required by the sample matrix.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Case Narrative (continued)

Pesticides

L1853111-02, -03, -05 and -09: The sample has elevated detection limits due to the dilution required by the sample matrix.

L1853111-03 and -05: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (0%) and decachlorobiphenyl (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

L1853111-07: The surrogate recovery is outside the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (322%); however, the sample was not re-extracted due to coelution with obvious interferences.

Herbicides

L1853111-09: The sample has elevated detection limits due to the dilution required by the sample matrix.

L1853111-09: The surrogate recoveries are below the acceptance criteria for dcaa (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Total Metals

L1853111-01 through -11: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

Cyanide, Total

The WG1193065-2 LCS recovery (66%), associated with L1853111-01 through -06, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

The WG1193067-2 LCS recovery (65%), associated with L1853111-07 through -11, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Case Narrative (continued)

Hexavalent Chromium

The WG1193257-5 Soluble MS recovery (61%), performed on L1853111-10, was outside the acceptance criteria. This has been attributed to matrix interference. A post-spike was performed with a recovery of 95%.

The WG1193259-4 Insoluble MS recovery (59%), performed on L1853111-11, is below the acceptance criteria. The Soluble MS recovery (0%) was also below criteria. This has been attributed to matrix interference.

A post-spike was performed with an acceptable recovery of 94%.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Amita Naik

Title: Technical Director/Representative

Date: 01/04/19

ORGANICS

VOLATILES

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-01
 Client ID: RB03_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:45
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/04/19 01:32
 Analyst: MV
 Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	280	130	1
1,1-Dichloroethane	ND		ug/kg	55	8.0	1
Chloroform	ND		ug/kg	83	7.7	1
Carbon tetrachloride	ND		ug/kg	55	13.	1
1,2-Dichloropropane	ND		ug/kg	55	6.9	1
Dibromochloromethane	ND		ug/kg	55	7.7	1
1,1,2-Trichloroethane	ND		ug/kg	55	15.	1
Tetrachloroethene	740		ug/kg	28	11.	1
Chlorobenzene	ND		ug/kg	28	7.0	1
Trichlorofluoromethane	ND		ug/kg	220	38.	1
1,2-Dichloroethane	ND		ug/kg	55	14.	1
1,1,1-Trichloroethane	ND		ug/kg	28	9.2	1
Bromodichloromethane	ND		ug/kg	28	6.0	1
trans-1,3-Dichloropropene	ND		ug/kg	55	15.	1
cis-1,3-Dichloropropene	ND		ug/kg	28	8.7	1
1,3-Dichloropropene, Total	ND		ug/kg	28	8.7	1
1,1-Dichloropropene	ND		ug/kg	28	8.8	1
Bromoform	ND		ug/kg	220	14.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	28	9.2	1
Benzene	18	J	ug/kg	28	9.2	1
Toluene	ND		ug/kg	55	30.	1
Ethylbenzene	44	J	ug/kg	55	7.8	1
Chloromethane	ND		ug/kg	220	51.	1
Bromomethane	ND		ug/kg	110	32.	1
Vinyl chloride	ND		ug/kg	55	18.	1
Chloroethane	ND		ug/kg	110	25.	1
1,1-Dichloroethene	ND		ug/kg	55	13.	1
trans-1,2-Dichloroethene	ND		ug/kg	83	7.6	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-01
Client ID: RB03_0-2
Sample Location: BRONX, NY

Date Collected: 12/26/18 09:45
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	28	7.6	1
1,2-Dichlorobenzene	ND		ug/kg	110	7.9	1
1,3-Dichlorobenzene	ND		ug/kg	110	8.2	1
1,4-Dichlorobenzene	ND		ug/kg	110	9.4	1
Methyl tert butyl ether	ND		ug/kg	110	11.	1
p/m-Xylene	120		ug/kg	110	31.	1
o-Xylene	74		ug/kg	55	16.	1
Xylenes, Total	190		ug/kg	55	16.	1
cis-1,2-Dichloroethene	ND		ug/kg	55	9.6	1
1,2-Dichloroethene, Total	ND		ug/kg	55	7.6	1
Dibromomethane	ND		ug/kg	110	13.	1
Styrene	ND		ug/kg	55	11.	1
Dichlorodifluoromethane	ND		ug/kg	550	50.	1
Acetone	ND		ug/kg	550	260	1
Carbon disulfide	ND		ug/kg	550	250	1
2-Butanone	ND		ug/kg	550	120	1
Vinyl acetate	ND		ug/kg	550	120	1
4-Methyl-2-pentanone	ND		ug/kg	550	71.	1
1,2,3-Trichloropropane	ND		ug/kg	110	7.0	1
2-Hexanone	ND		ug/kg	550	65.	1
Bromochloromethane	ND		ug/kg	110	11.	1
2,2-Dichloropropane	ND		ug/kg	110	11.	1
1,2-Dibromoethane	ND		ug/kg	55	15.	1
1,3-Dichloropropane	ND		ug/kg	110	9.2	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	28	7.3	1
Bromobenzene	ND		ug/kg	110	8.0	1
n-Butylbenzene	49	J	ug/kg	55	9.2	1
sec-Butylbenzene	78		ug/kg	55	8.0	1
tert-Butylbenzene	13	J	ug/kg	110	6.5	1
o-Chlorotoluene	ND		ug/kg	110	10.	1
p-Chlorotoluene	ND		ug/kg	110	6.0	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	160	55.	1
Hexachlorobutadiene	ND		ug/kg	220	9.3	1
Isopropylbenzene	39	J	ug/kg	55	6.0	1
p-Isopropyltoluene	130		ug/kg	55	6.0	1
Naphthalene	140	J	ug/kg	220	36.	1
Acrylonitrile	ND		ug/kg	220	63.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-01
 Client ID: RB03_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:45
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	39	J	ug/kg	55	9.4	1
1,2,3-Trichlorobenzene	ND		ug/kg	110	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	110	15.	1
1,3,5-Trimethylbenzene	330		ug/kg	110	11.	1
1,2,4-Trimethylbenzene	540		ug/kg	110	18.	1
1,4-Dioxane	ND		ug/kg	5500	1900	1
p-Diethylbenzene	770		ug/kg	110	9.8	1
p-Ethyltoluene	270		ug/kg	110	21.	1
1,2,4,5-Tetramethylbenzene	150		ug/kg	110	10.	1
Ethyl ether	ND		ug/kg	110	19.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	280	78.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	158	Q	70-130
Dibromofluoromethane	102		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-02
 Client ID: RB03_2-3
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:50
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/03/19 20:29
 Analyst: MV
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.9	3.2	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.20	1
Chloroform	0.20	J	ug/kg	2.1	0.19	1
Carbon tetrachloride	ND		ug/kg	1.4	0.32	1
1,2-Dichloropropane	ND		ug/kg	1.4	0.17	1
Dibromochloromethane	ND		ug/kg	1.4	0.19	1
1,1,2-Trichloroethane	ND		ug/kg	1.4	0.37	1
Tetrachloroethene	26		ug/kg	0.69	0.27	1
Chlorobenzene	ND		ug/kg	0.69	0.17	1
Trichlorofluoromethane	ND		ug/kg	5.5	0.96	1
1,2-Dichloroethane	ND		ug/kg	1.4	0.35	1
1,1,1-Trichloroethane	ND		ug/kg	0.69	0.23	1
Bromodichloromethane	ND		ug/kg	0.69	0.15	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	0.38	1
cis-1,3-Dichloropropene	ND		ug/kg	0.69	0.22	1
1,3-Dichloropropene, Total	ND		ug/kg	0.69	0.22	1
1,1-Dichloropropene	ND		ug/kg	0.69	0.22	1
Bromoform	ND		ug/kg	5.5	0.34	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.69	0.23	1
Benzene	0.63	J	ug/kg	0.69	0.23	1
Toluene	2.4		ug/kg	1.4	0.75	1
Ethylbenzene	0.93	J	ug/kg	1.4	0.19	1
Chloromethane	ND		ug/kg	5.5	1.3	1
Bromomethane	ND		ug/kg	2.8	0.80	1
Vinyl chloride	ND		ug/kg	1.4	0.46	1
Chloroethane	ND		ug/kg	2.8	0.62	1
1,1-Dichloroethene	ND		ug/kg	1.4	0.33	1
trans-1,2-Dichloroethene	ND		ug/kg	2.1	0.19	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-02
Client ID: RB03_2-3
Sample Location: BRONX, NY

Date Collected: 12/26/18 09:50
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.69	0.19	1
1,2-Dichlorobenzene	ND		ug/kg	2.8	0.20	1
1,3-Dichlorobenzene	ND		ug/kg	2.8	0.20	1
1,4-Dichlorobenzene	ND		ug/kg	2.8	0.24	1
Methyl tert butyl ether	ND		ug/kg	2.8	0.28	1
p/m-Xylene	2.0	J	ug/kg	2.8	0.77	1
o-Xylene	0.60	J	ug/kg	1.4	0.40	1
Xylenes, Total	2.6	J	ug/kg	1.4	0.40	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.24	1
1,2-Dichloroethene, Total	ND		ug/kg	1.4	0.19	1
Dibromomethane	ND		ug/kg	2.8	0.33	1
Styrene	ND		ug/kg	1.4	0.27	1
Dichlorodifluoromethane	ND		ug/kg	14	1.2	1
Acetone	ND		ug/kg	14	6.6	1
Carbon disulfide	ND		ug/kg	14	6.3	1
2-Butanone	ND		ug/kg	14	3.0	1
Vinyl acetate	ND		ug/kg	14	3.0	1
4-Methyl-2-pentanone	ND		ug/kg	14	1.8	1
1,2,3-Trichloropropane	ND		ug/kg	2.8	0.17	1
2-Hexanone	ND		ug/kg	14	1.6	1
Bromochloromethane	ND		ug/kg	2.8	0.28	1
2,2-Dichloropropane	ND		ug/kg	2.8	0.28	1
1,2-Dibromoethane	ND		ug/kg	1.4	0.38	1
1,3-Dichloropropane	ND		ug/kg	2.8	0.23	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.69	0.18	1
Bromobenzene	ND		ug/kg	2.8	0.20	1
n-Butylbenzene	ND		ug/kg	1.4	0.23	1
sec-Butylbenzene	ND		ug/kg	1.4	0.20	1
tert-Butylbenzene	ND		ug/kg	2.8	0.16	1
o-Chlorotoluene	ND		ug/kg	2.8	0.26	1
p-Chlorotoluene	ND		ug/kg	2.8	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.1	1.4	1
Hexachlorobutadiene	ND		ug/kg	5.5	0.23	1
Isopropylbenzene	ND		ug/kg	1.4	0.15	1
p-Isopropyltoluene	ND		ug/kg	1.4	0.15	1
Naphthalene	ND		ug/kg	5.5	0.89	1
Acrylonitrile	ND		ug/kg	5.5	1.6	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-02
Client ID: RB03_2-3
Sample Location: BRONX, NY

Date Collected: 12/26/18 09:50
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	0.40	J	ug/kg	1.4	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.8	0.44	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.8	0.37	1
1,3,5-Trimethylbenzene	0.79	J	ug/kg	2.8	0.26	1
1,2,4-Trimethylbenzene	1.2	J	ug/kg	2.8	0.46	1
1,4-Dioxane	ND		ug/kg	140	48.	1
p-Diethylbenzene	ND		ug/kg	2.8	0.24	1
p-Ethyltoluene	1.7	J	ug/kg	2.8	0.53	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.8	0.26	1
Ethyl ether	ND		ug/kg	2.8	0.47	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.9	2.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	118		70-130
4-Bromofluorobenzene	133	Q	70-130
Dibromofluoromethane	106		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-02 R
 Client ID: RB03_2-3
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:50
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/04/19 03:51
 Analyst: MV
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	7.3	3.3	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.21	1
Chloroform	0.37	J	ug/kg	2.2	0.20	1
Carbon tetrachloride	ND		ug/kg	1.4	0.34	1
1,2-Dichloropropane	ND		ug/kg	1.4	0.18	1
Dibromochloromethane	ND		ug/kg	1.4	0.20	1
1,1,2-Trichloroethane	ND		ug/kg	1.4	0.39	1
Tetrachloroethene	31		ug/kg	0.73	0.29	1
Chlorobenzene	ND		ug/kg	0.73	0.18	1
Trichlorofluoromethane	ND		ug/kg	5.8	1.0	1
1,2-Dichloroethane	ND		ug/kg	1.4	0.38	1
1,1,1-Trichloroethane	ND		ug/kg	0.73	0.24	1
Bromodichloromethane	ND		ug/kg	0.73	0.16	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	0.40	1
cis-1,3-Dichloropropene	ND		ug/kg	0.73	0.23	1
1,3-Dichloropropene, Total	ND		ug/kg	0.73	0.23	1
1,1-Dichloropropene	ND		ug/kg	0.73	0.23	1
Bromoform	ND		ug/kg	5.8	0.36	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.73	0.24	1
Benzene	0.54	J	ug/kg	0.73	0.24	1
Toluene	2.0		ug/kg	1.4	0.79	1
Ethylbenzene	0.62	J	ug/kg	1.4	0.20	1
Chloromethane	ND		ug/kg	5.8	1.4	1
Bromomethane	ND		ug/kg	2.9	0.85	1
Vinyl chloride	ND		ug/kg	1.4	0.49	1
Chloroethane	ND		ug/kg	2.9	0.66	1
1,1-Dichloroethene	ND		ug/kg	1.4	0.35	1
trans-1,2-Dichloroethene	ND		ug/kg	2.2	0.20	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-02 R

Date Collected: 12/26/18 09:50

Client ID: RB03_2-3

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.73	0.20	1
1,2-Dichlorobenzene	ND		ug/kg	2.9	0.21	1
1,3-Dichlorobenzene	ND		ug/kg	2.9	0.22	1
1,4-Dichlorobenzene	ND		ug/kg	2.9	0.25	1
Methyl tert butyl ether	ND		ug/kg	2.9	0.29	1
p/m-Xylene	1.3	J	ug/kg	2.9	0.82	1
o-Xylene	0.44	J	ug/kg	1.4	0.42	1
Xylenes, Total	1.7	J	ug/kg	1.4	0.42	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.26	1
1,2-Dichloroethene, Total	ND		ug/kg	1.4	0.20	1
Dibromomethane	ND		ug/kg	2.9	0.35	1
Styrene	ND		ug/kg	1.4	0.29	1
Dichlorodifluoromethane	ND		ug/kg	14	1.3	1
Acetone	7.7	J	ug/kg	14	7.0	1
Carbon disulfide	ND		ug/kg	14	6.6	1
2-Butanone	ND		ug/kg	14	3.2	1
Vinyl acetate	ND		ug/kg	14	3.1	1
4-Methyl-2-pentanone	ND		ug/kg	14	1.9	1
1,2,3-Trichloropropane	ND		ug/kg	2.9	0.18	1
2-Hexanone	ND		ug/kg	14	1.7	1
Bromochloromethane	ND		ug/kg	2.9	0.30	1
2,2-Dichloropropane	ND		ug/kg	2.9	0.29	1
1,2-Dibromoethane	ND		ug/kg	1.4	0.41	1
1,3-Dichloropropane	ND		ug/kg	2.9	0.24	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.73	0.19	1
Bromobenzene	ND		ug/kg	2.9	0.21	1
n-Butylbenzene	ND		ug/kg	1.4	0.24	1
sec-Butylbenzene	ND		ug/kg	1.4	0.21	1
tert-Butylbenzene	ND		ug/kg	2.9	0.17	1
o-Chlorotoluene	ND		ug/kg	2.9	0.28	1
p-Chlorotoluene	ND		ug/kg	2.9	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.4	1.4	1
Hexachlorobutadiene	ND		ug/kg	5.8	0.25	1
Isopropylbenzene	ND		ug/kg	1.4	0.16	1
p-Isopropyltoluene	ND		ug/kg	1.4	0.16	1
Naphthalene	ND		ug/kg	5.8	0.95	1
Acrylonitrile	ND		ug/kg	5.8	1.7	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-02 R
 Client ID: RB03_2-3
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:50
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.4	0.25	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.9	0.47	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.9	0.40	1
1,3,5-Trimethylbenzene	0.46	J	ug/kg	2.9	0.28	1
1,2,4-Trimethylbenzene	0.84	J	ug/kg	2.9	0.49	1
1,4-Dioxane	ND		ug/kg	140	51.	1
p-Diethylbenzene	ND		ug/kg	2.9	0.26	1
p-Ethyltoluene	1.0	J	ug/kg	2.9	0.56	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.9	0.28	1
Ethyl ether	ND		ug/kg	2.9	0.50	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.3	2.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	114		70-130
4-Bromofluorobenzene	141	Q	70-130
Dibromofluoromethane	105		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-03
 Client ID: RB03_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:55
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/04/19 01:58
 Analyst: MV
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	320	150	1
1,1-Dichloroethane	ND		ug/kg	65	9.4	1
Chloroform	ND		ug/kg	98	9.1	1
Carbon tetrachloride	ND		ug/kg	65	15.	1
1,2-Dichloropropane	ND		ug/kg	65	8.1	1
Dibromochloromethane	ND		ug/kg	65	9.1	1
1,1,2-Trichloroethane	ND		ug/kg	65	17.	1
Tetrachloroethene	25	J	ug/kg	32	13.	1
Chlorobenzene	ND		ug/kg	32	8.3	1
Trichlorofluoromethane	ND		ug/kg	260	45.	1
1,2-Dichloroethane	ND		ug/kg	65	17.	1
1,1,1-Trichloroethane	ND		ug/kg	32	11.	1
Bromodichloromethane	ND		ug/kg	32	7.1	1
trans-1,3-Dichloropropene	ND		ug/kg	65	18.	1
cis-1,3-Dichloropropene	ND		ug/kg	32	10.	1
1,3-Dichloropropene, Total	ND		ug/kg	32	10.	1
1,1-Dichloropropene	ND		ug/kg	32	10.	1
Bromoform	ND		ug/kg	260	16.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	32	11.	1
Benzene	13	J	ug/kg	32	11.	1
Toluene	ND		ug/kg	65	35.	1
Ethylbenzene	32	J	ug/kg	65	9.2	1
Chloromethane	ND		ug/kg	260	61.	1
Bromomethane	ND		ug/kg	130	38.	1
Vinyl chloride	ND		ug/kg	65	22.	1
Chloroethane	ND		ug/kg	130	29.	1
1,1-Dichloroethene	ND		ug/kg	65	16.	1
trans-1,2-Dichloroethene	ND		ug/kg	98	8.9	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-03
Client ID: RB03_10-12
Sample Location: BRONX, NY

Date Collected: 12/26/18 09:55
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	32	8.9	1
1,2-Dichlorobenzene	ND		ug/kg	130	9.4	1
1,3-Dichlorobenzene	ND		ug/kg	130	9.6	1
1,4-Dichlorobenzene	ND		ug/kg	130	11.	1
Methyl tert butyl ether	ND		ug/kg	130	13.	1
p/m-Xylene	ND		ug/kg	130	36.	1
o-Xylene	33	J	ug/kg	65	19.	1
Xylenes, Total	33	J	ug/kg	65	19.	1
cis-1,2-Dichloroethene	ND		ug/kg	65	11.	1
1,2-Dichloroethene, Total	ND		ug/kg	65	8.9	1
Dibromomethane	ND		ug/kg	130	16.	1
Styrene	55	J	ug/kg	65	13.	1
Dichlorodifluoromethane	ND		ug/kg	650	60.	1
Acetone	ND		ug/kg	650	310	1
Carbon disulfide	ND		ug/kg	650	300	1
2-Butanone	ND		ug/kg	650	140	1
Vinyl acetate	ND		ug/kg	650	140	1
4-Methyl-2-pentanone	ND		ug/kg	650	83.	1
1,2,3-Trichloropropane	ND		ug/kg	130	8.3	1
2-Hexanone	ND		ug/kg	650	77.	1
Bromochloromethane	ND		ug/kg	130	13.	1
2,2-Dichloropropane	ND		ug/kg	130	13.	1
1,2-Dibromoethane	ND		ug/kg	65	18.	1
1,3-Dichloropropane	ND		ug/kg	130	11.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	32	8.6	1
Bromobenzene	ND		ug/kg	130	9.4	1
n-Butylbenzene	79		ug/kg	65	11.	1
sec-Butylbenzene	63	J	ug/kg	65	9.5	1
tert-Butylbenzene	ND		ug/kg	130	7.7	1
o-Chlorotoluene	ND		ug/kg	130	12.	1
p-Chlorotoluene	ND		ug/kg	130	7.0	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	200	65.	1
Hexachlorobutadiene	ND		ug/kg	260	11.	1
Isopropylbenzene	42	J	ug/kg	65	7.1	1
p-Isopropyltoluene	36	J	ug/kg	65	7.1	1
Naphthalene	630		ug/kg	260	42.	1
Acrylonitrile	ND		ug/kg	260	75.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-03
Client ID: RB03_10-12
Sample Location: BRONX, NY

Date Collected: 12/26/18 09:55
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	79		ug/kg	65	11.	1
1,2,3-Trichlorobenzene	ND		ug/kg	130	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	130	18.	1
1,3,5-Trimethylbenzene	75	J	ug/kg	130	12.	1
1,2,4-Trimethylbenzene	250		ug/kg	130	22.	1
1,4-Dioxane	ND		ug/kg	6500	2300	1
p-Diethylbenzene	200		ug/kg	130	12.	1
p-Ethyltoluene	97	J	ug/kg	130	25.	1
1,2,4,5-Tetramethylbenzene	270		ug/kg	130	12.	1
Ethyl ether	ND		ug/kg	130	22.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	320	92.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	118		70-130
Dibromofluoromethane	104		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-04
 Client ID: RB12_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 11:55
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/04/19 02:25
 Analyst: MV
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	380	180	1
1,1-Dichloroethane	ND		ug/kg	77	11.	1
Chloroform	ND		ug/kg	120	11.	1
Carbon tetrachloride	ND		ug/kg	77	18.	1
1,2-Dichloropropane	ND		ug/kg	77	9.6	1
Dibromochloromethane	ND		ug/kg	77	11.	1
1,1,2-Trichloroethane	ND		ug/kg	77	20.	1
Tetrachloroethene	130		ug/kg	38	15.	1
Chlorobenzene	ND		ug/kg	38	9.8	1
Trichlorofluoromethane	ND		ug/kg	310	53.	1
1,2-Dichloroethane	ND		ug/kg	77	20.	1
1,1,1-Trichloroethane	ND		ug/kg	38	13.	1
Bromodichloromethane	ND		ug/kg	38	8.4	1
trans-1,3-Dichloropropene	ND		ug/kg	77	21.	1
cis-1,3-Dichloropropene	ND		ug/kg	38	12.	1
1,3-Dichloropropene, Total	ND		ug/kg	38	12.	1
1,1-Dichloropropene	ND		ug/kg	38	12.	1
Bromoform	ND		ug/kg	310	19.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	38	13.	1
Benzene	48		ug/kg	38	13.	1
Toluene	400		ug/kg	77	42.	1
Ethylbenzene	120		ug/kg	77	11.	1
Chloromethane	ND		ug/kg	310	72.	1
Bromomethane	ND		ug/kg	150	45.	1
Vinyl chloride	ND		ug/kg	77	26.	1
Chloroethane	ND		ug/kg	150	35.	1
1,1-Dichloroethene	ND		ug/kg	77	18.	1
trans-1,2-Dichloroethene	ND		ug/kg	120	10.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-04
Client ID: RB12_0-2
Sample Location: BRONX, NY

Date Collected: 12/26/18 11:55
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	38	10.	1
1,2-Dichlorobenzene	ND		ug/kg	150	11.	1
1,3-Dichlorobenzene	ND		ug/kg	150	11.	1
1,4-Dichlorobenzene	ND		ug/kg	150	13.	1
Methyl tert butyl ether	ND		ug/kg	150	15.	1
p/m-Xylene	620		ug/kg	150	43.	1
o-Xylene	200		ug/kg	77	22.	1
Xylenes, Total	820		ug/kg	77	22.	1
cis-1,2-Dichloroethene	ND		ug/kg	77	13.	1
1,2-Dichloroethene, Total	ND		ug/kg	77	10.	1
Dibromomethane	ND		ug/kg	150	18.	1
Styrene	ND		ug/kg	77	15.	1
Dichlorodifluoromethane	ND		ug/kg	770	70.	1
Acetone	ND		ug/kg	770	370	1
Carbon disulfide	ND		ug/kg	770	350	1
2-Butanone	ND		ug/kg	770	170	1
Vinyl acetate	ND		ug/kg	770	160	1
4-Methyl-2-pentanone	ND		ug/kg	770	98.	1
1,2,3-Trichloropropane	ND		ug/kg	150	9.8	1
2-Hexanone	ND		ug/kg	770	91.	1
Bromochloromethane	ND		ug/kg	150	16.	1
2,2-Dichloropropane	ND		ug/kg	150	16.	1
1,2-Dibromoethane	ND		ug/kg	77	21.	1
1,3-Dichloropropane	ND		ug/kg	150	13.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	38	10.	1
Bromobenzene	ND		ug/kg	150	11.	1
n-Butylbenzene	19	J	ug/kg	77	13.	1
sec-Butylbenzene	29	J	ug/kg	77	11.	1
tert-Butylbenzene	ND		ug/kg	150	9.1	1
o-Chlorotoluene	ND		ug/kg	150	15.	1
p-Chlorotoluene	ND		ug/kg	150	8.3	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	230	77.	1
Hexachlorobutadiene	ND		ug/kg	310	13.	1
Isopropylbenzene	18	J	ug/kg	77	8.4	1
p-Isopropyltoluene	34	J	ug/kg	77	8.4	1
Naphthalene	220	J	ug/kg	310	50.	1
Acrylonitrile	ND		ug/kg	310	88.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-04
 Client ID: RB12_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 11:55
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	80		ug/kg	77	13.	1
1,2,3-Trichlorobenzene	ND		ug/kg	150	25.	1
1,2,4-Trichlorobenzene	ND		ug/kg	150	21.	1
1,3,5-Trimethylbenzene	120	J	ug/kg	150	15.	1
1,2,4-Trimethylbenzene	200		ug/kg	150	26.	1
1,4-Dioxane	ND		ug/kg	7700	2700	1
p-Diethylbenzene	150		ug/kg	150	14.	1
p-Ethyltoluene	340		ug/kg	150	29.	1
1,2,4,5-Tetramethylbenzene	32	J	ug/kg	150	15.	1
Ethyl ether	ND		ug/kg	150	26.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	380	110	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	103		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-05 D
 Client ID: RB12_8-9
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/04/19 11:50
 Analyst: JC
 Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	630	290	2
1,1-Dichloroethane	ND		ug/kg	130	18.	2
Chloroform	ND		ug/kg	190	18.	2
Carbon tetrachloride	ND		ug/kg	130	29.	2
1,2-Dichloropropane	ND		ug/kg	130	16.	2
Dibromochloromethane	ND		ug/kg	130	18.	2
1,1,2-Trichloroethane	ND		ug/kg	130	34.	2
Tetrachloroethene	ND		ug/kg	63	25.	2
Chlorobenzene	ND		ug/kg	63	16.	2
Trichlorofluoromethane	ND		ug/kg	500	88.	2
1,2-Dichloroethane	ND		ug/kg	130	32.	2
1,1,1-Trichloroethane	ND		ug/kg	63	21.	2
Bromodichloromethane	ND		ug/kg	63	14.	2
trans-1,3-Dichloropropene	ND		ug/kg	130	34.	2
cis-1,3-Dichloropropene	ND		ug/kg	63	20.	2
1,3-Dichloropropene, Total	ND		ug/kg	63	20.	2
1,1-Dichloropropene	ND		ug/kg	63	20.	2
Bromoform	ND		ug/kg	500	31.	2
1,1,2,2-Tetrachloroethane	ND		ug/kg	63	21.	2
Benzene	ND		ug/kg	63	21.	2
Toluene	ND		ug/kg	130	68.	2
Ethylbenzene	32	J	ug/kg	130	18.	2
Chloromethane	ND		ug/kg	500	120	2
Bromomethane	ND		ug/kg	250	73.	2
Vinyl chloride	ND		ug/kg	130	42.	2
Chloroethane	ND		ug/kg	250	57.	2
1,1-Dichloroethene	ND		ug/kg	130	30.	2
trans-1,2-Dichloroethene	ND		ug/kg	190	17.	2

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-05 D

Date Collected: 12/26/18 12:00

Client ID: RB12_8-9

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	63	17.	2
1,2-Dichlorobenzene	ND		ug/kg	250	18.	2
1,3-Dichlorobenzene	ND		ug/kg	250	19.	2
1,4-Dichlorobenzene	ND		ug/kg	250	22.	2
Methyl tert butyl ether	ND		ug/kg	250	25.	2
p/m-Xylene	ND		ug/kg	250	71.	2
o-Xylene	ND		ug/kg	130	37.	2
Xylenes, Total	ND		ug/kg	130	37.	2
cis-1,2-Dichloroethene	ND		ug/kg	130	22.	2
1,2-Dichloroethene, Total	ND		ug/kg	130	17.	2
Dibromomethane	ND		ug/kg	250	30.	2
Styrene	ND		ug/kg	130	25.	2
Dichlorodifluoromethane	ND		ug/kg	1300	120	2
Acetone	ND		ug/kg	1300	610	2
Carbon disulfide	ND		ug/kg	1300	570	2
2-Butanone	ND		ug/kg	1300	280	2
Vinyl acetate	ND		ug/kg	1300	270	2
4-Methyl-2-pentanone	ND		ug/kg	1300	160	2
1,2,3-Trichloropropane	ND		ug/kg	250	16.	2
2-Hexanone	ND		ug/kg	1300	150	2
Bromochloromethane	ND		ug/kg	250	26.	2
2,2-Dichloropropane	ND		ug/kg	250	25.	2
1,2-Dibromoethane	ND		ug/kg	130	35.	2
1,3-Dichloropropane	ND		ug/kg	250	21.	2
1,1,1,2-Tetrachloroethane	ND		ug/kg	63	17.	2
Bromobenzene	ND		ug/kg	250	18.	2
n-Butylbenzene	2000		ug/kg	130	21.	2
sec-Butylbenzene	1600		ug/kg	130	18.	2
tert-Butylbenzene	90	J	ug/kg	250	15.	2
o-Chlorotoluene	ND		ug/kg	250	24.	2
p-Chlorotoluene	ND		ug/kg	250	14.	2
1,2-Dibromo-3-chloropropane	ND		ug/kg	380	120	2
Hexachlorobutadiene	ND		ug/kg	500	21.	2
Isopropylbenzene	100	J	ug/kg	130	14.	2
p-Isopropyltoluene	1900		ug/kg	130	14.	2
Naphthalene	1500		ug/kg	500	82.	2
Acrylonitrile	ND		ug/kg	500	140	2

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-05 D

Date Collected: 12/26/18 12:00

Client ID: RB12_8-9

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	440		ug/kg	130	22.	2
1,2,3-Trichlorobenzene	ND		ug/kg	250	41.	2
1,2,4-Trichlorobenzene	ND		ug/kg	250	34.	2
1,3,5-Trimethylbenzene	2200		ug/kg	250	24.	2
1,2,4-Trimethylbenzene	11000		ug/kg	250	42.	2
1,4-Dioxane	ND		ug/kg	13000	4400	2
p-Diethylbenzene	9000		ug/kg	250	22.	2
p-Ethyltoluene	2400		ug/kg	250	48.	2
1,2,4,5-Tetramethylbenzene	2100		ug/kg	250	24.	2
Ethyl ether	ND		ug/kg	250	43.	2
trans-1,4-Dichloro-2-butene	ND		ug/kg	630	180	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	146	Q	70-130
Dibromofluoromethane	102		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-06
 Client ID: RB12_9-10
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:05
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/04/19 03:17
 Analyst: MV
 Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	320	150	1
1,1-Dichloroethane	ND		ug/kg	64	9.3	1
Chloroform	ND		ug/kg	96	9.0	1
Carbon tetrachloride	ND		ug/kg	64	15.	1
1,2-Dichloropropane	ND		ug/kg	64	8.0	1
Dibromochloromethane	ND		ug/kg	64	9.0	1
1,1,2-Trichloroethane	ND		ug/kg	64	17.	1
Tetrachloroethene	ND		ug/kg	32	12.	1
Chlorobenzene	ND		ug/kg	32	8.2	1
Trichlorofluoromethane	ND		ug/kg	260	45.	1
1,2-Dichloroethane	ND		ug/kg	64	16.	1
1,1,1-Trichloroethane	ND		ug/kg	32	11.	1
Bromodichloromethane	ND		ug/kg	32	7.0	1
trans-1,3-Dichloropropene	ND		ug/kg	64	18.	1
cis-1,3-Dichloropropene	ND		ug/kg	32	10.	1
1,3-Dichloropropene, Total	ND		ug/kg	32	10.	1
1,1-Dichloropropene	ND		ug/kg	32	10.	1
Bromoform	ND		ug/kg	260	16.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	32	11.	1
Benzene	28	J	ug/kg	32	11.	1
Toluene	160		ug/kg	64	35.	1
Ethylbenzene	79		ug/kg	64	9.0	1
Chloromethane	ND		ug/kg	260	60.	1
Bromomethane	ND		ug/kg	130	37.	1
Vinyl chloride	ND		ug/kg	64	22.	1
Chloroethane	ND		ug/kg	130	29.	1
1,1-Dichloroethene	ND		ug/kg	64	15.	1
trans-1,2-Dichloroethene	ND		ug/kg	96	8.8	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-06

Date Collected: 12/26/18 12:05

Client ID: RB12_9-10

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	32	8.8	1
1,2-Dichlorobenzene	ND		ug/kg	130	9.2	1
1,3-Dichlorobenzene	ND		ug/kg	130	9.5	1
1,4-Dichlorobenzene	ND		ug/kg	130	11.	1
Methyl tert butyl ether	ND		ug/kg	130	13.	1
p/m-Xylene	160		ug/kg	130	36.	1
o-Xylene	53	J	ug/kg	64	19.	1
Xylenes, Total	210	J	ug/kg	64	19.	1
cis-1,2-Dichloroethene	ND		ug/kg	64	11.	1
1,2-Dichloroethene, Total	ND		ug/kg	64	8.8	1
Dibromomethane	ND		ug/kg	130	15.	1
Styrene	ND		ug/kg	64	12.	1
Dichlorodifluoromethane	ND		ug/kg	640	59.	1
Acetone	ND		ug/kg	640	310	1
Carbon disulfide	ND		ug/kg	640	290	1
2-Butanone	ND		ug/kg	640	140	1
Vinyl acetate	ND		ug/kg	640	140	1
4-Methyl-2-pentanone	ND		ug/kg	640	82.	1
1,2,3-Trichloropropane	ND		ug/kg	130	8.2	1
2-Hexanone	ND		ug/kg	640	76.	1
Bromochloromethane	ND		ug/kg	130	13.	1
2,2-Dichloropropane	ND		ug/kg	130	13.	1
1,2-Dibromoethane	ND		ug/kg	64	18.	1
1,3-Dichloropropane	ND		ug/kg	130	11.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	32	8.5	1
Bromobenzene	ND		ug/kg	130	9.3	1
n-Butylbenzene	70		ug/kg	64	11.	1
sec-Butylbenzene	93		ug/kg	64	9.4	1
tert-Butylbenzene	ND		ug/kg	130	7.6	1
o-Chlorotoluene	ND		ug/kg	130	12.	1
p-Chlorotoluene	ND		ug/kg	130	6.9	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	190	64.	1
Hexachlorobutadiene	ND		ug/kg	260	11.	1
Isopropylbenzene	30	J	ug/kg	64	7.0	1
p-Isopropyltoluene	42	J	ug/kg	64	7.0	1
Naphthalene	1000		ug/kg	260	42.	1
Acrylonitrile	ND		ug/kg	260	74.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-06
 Client ID: RB12_9-10
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:05
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	74		ug/kg	64	11.	1
1,2,3-Trichlorobenzene	ND		ug/kg	130	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	130	17.	1
1,3,5-Trimethylbenzene	180		ug/kg	130	12.	1
1,2,4-Trimethylbenzene	540		ug/kg	130	21.	1
1,4-Dioxane	ND		ug/kg	6400	2200	1
p-Diethylbenzene	210		ug/kg	130	11.	1
p-Ethyltoluene	270		ug/kg	130	25.	1
1,2,4,5-Tetramethylbenzene	38	J	ug/kg	130	12.	1
Ethyl ether	ND		ug/kg	130	22.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	320	91.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	113		70-130
Dibromofluoromethane	103		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-07
 Client ID: RB12_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:10
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/03/19 20:57
 Analyst: AD
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.8	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.95	0.14	1
Chloroform	0.20	J	ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.95	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.95	0.12	1
Dibromochloromethane	ND		ug/kg	0.95	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.95	0.25	1
Tetrachloroethene	0.22	J	ug/kg	0.48	0.19	1
Chlorobenzene	ND		ug/kg	0.48	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.8	0.66	1
1,2-Dichloroethane	ND		ug/kg	0.95	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	0.48	0.16	1
Bromodichloromethane	ND		ug/kg	0.48	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.95	0.26	1
cis-1,3-Dichloropropene	ND		ug/kg	0.48	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.48	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.48	0.15	1
Bromoform	ND		ug/kg	3.8	0.23	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.48	0.16	1
Benzene	0.48		ug/kg	0.48	0.16	1
Toluene	1.0		ug/kg	0.95	0.52	1
Ethylbenzene	0.47	J	ug/kg	0.95	0.13	1
Chloromethane	ND		ug/kg	3.8	0.89	1
Bromomethane	ND		ug/kg	1.9	0.55	1
Vinyl chloride	ND		ug/kg	0.95	0.32	1
Chloroethane	ND		ug/kg	1.9	0.43	1
1,1-Dichloroethene	ND		ug/kg	0.95	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-07

Date Collected: 12/26/18 12:10

Client ID: RB12_10-12

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.48	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.9	0.19	1
p/m-Xylene	ND		ug/kg	1.9	0.53	1
o-Xylene	ND		ug/kg	0.95	0.28	1
Xylenes, Total	ND		ug/kg	0.95	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.95	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	0.95	0.13	1
Dibromomethane	ND		ug/kg	1.9	0.23	1
Styrene	ND		ug/kg	0.95	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.5	0.87	1
Acetone	ND		ug/kg	9.5	4.6	1
Carbon disulfide	ND		ug/kg	9.5	4.3	1
2-Butanone	ND		ug/kg	9.5	2.1	1
Vinyl acetate	ND		ug/kg	9.5	2.0	1
4-Methyl-2-pentanone	ND		ug/kg	9.5	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	1.9	0.12	1
2-Hexanone	ND		ug/kg	9.5	1.1	1
Bromochloromethane	ND		ug/kg	1.9	0.20	1
2,2-Dichloropropane	ND		ug/kg	1.9	0.19	1
1,2-Dibromoethane	ND		ug/kg	0.95	0.27	1
1,3-Dichloropropane	ND		ug/kg	1.9	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.48	0.12	1
Bromobenzene	ND		ug/kg	1.9	0.14	1
n-Butylbenzene	ND		ug/kg	0.95	0.16	1
sec-Butylbenzene	0.18	J	ug/kg	0.95	0.14	1
tert-Butylbenzene	ND		ug/kg	1.9	0.11	1
o-Chlorotoluene	ND		ug/kg	1.9	0.18	1
p-Chlorotoluene	ND		ug/kg	1.9	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.95	1
Hexachlorobutadiene	ND		ug/kg	3.8	0.16	1
Isopropylbenzene	ND		ug/kg	0.95	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.95	0.10	1
Naphthalene	1.5	J	ug/kg	3.8	0.62	1
Acrylonitrile	ND		ug/kg	3.8	1.1	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-07
Client ID: RB12_10-12
Sample Location: BRONX, NY

Date Collected: 12/26/18 12:10
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.95	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.9	0.31	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	0.26	1
1,3,5-Trimethylbenzene	0.43	J	ug/kg	1.9	0.18	1
1,2,4-Trimethylbenzene	1.2	J	ug/kg	1.9	0.32	1
1,4-Dioxane	ND		ug/kg	95	33.	1
p-Diethylbenzene	ND		ug/kg	1.9	0.17	1
p-Ethyltoluene	0.47	J	ug/kg	1.9	0.37	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.9	0.18	1
Ethyl ether	ND		ug/kg	1.9	0.32	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.8	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	111		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	104		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-08
 Client ID: RB02_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:25
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/03/19 21:24
 Analyst: AD
 Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.9	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	ND		ug/kg	0.59	0.23	1
Chlorobenzene	ND		ug/kg	0.59	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.7	0.82	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.59	0.20	1
Bromodichloromethane	ND		ug/kg	0.59	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.59	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.59	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.59	0.19	1
Bromoform	ND		ug/kg	4.7	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.59	0.20	1
Benzene	ND		ug/kg	0.59	0.20	1
Toluene	ND		ug/kg	1.2	0.64	1
Ethylbenzene	ND		ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.7	1.1	1
Bromomethane	ND		ug/kg	2.4	0.68	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.4	0.53	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-08
Client ID: RB02_0-2
Sample Location: BRONX, NY

Date Collected: 12/26/18 13:25
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.59	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.66	1
o-Xylene	ND		ug/kg	1.2	0.34	1
Xylenes, Total	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.4	0.28	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.3	1
2-Butanone	ND		ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.5	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.59	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.22	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.7	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.7	0.76	1
Acrylonitrile	ND		ug/kg	4.7	1.4	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-08
 Client ID: RB02_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:25
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.39	1
1,4-Dioxane	ND		ug/kg	120	41.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.21	1
p-Ethyltoluene	ND		ug/kg	2.4	0.45	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.4	0.22	1
Ethyl ether	ND		ug/kg	2.4	0.40	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.9	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-09
 Client ID: RB02_7-9
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:30
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/03/19 21:52
 Analyst: AD
 Percent Solids: 70%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	8.8	4.0	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.26	1
Chloroform	0.46	J	ug/kg	2.6	0.25	1
Carbon tetrachloride	ND		ug/kg	1.8	0.40	1
1,2-Dichloropropane	ND		ug/kg	1.8	0.22	1
Dibromochloromethane	ND		ug/kg	1.8	0.25	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.47	1
Tetrachloroethene	1.7		ug/kg	0.88	0.34	1
Chlorobenzene	ND		ug/kg	0.88	0.22	1
Trichlorofluoromethane	ND		ug/kg	7.0	1.2	1
1,2-Dichloroethane	ND		ug/kg	1.8	0.45	1
1,1,1-Trichloroethane	ND		ug/kg	0.88	0.29	1
Bromodichloromethane	ND		ug/kg	0.88	0.19	1
trans-1,3-Dichloropropene	ND		ug/kg	1.8	0.48	1
cis-1,3-Dichloropropene	ND		ug/kg	0.88	0.28	1
1,3-Dichloropropene, Total	ND		ug/kg	0.88	0.28	1
1,1-Dichloropropene	ND		ug/kg	0.88	0.28	1
Bromoform	ND		ug/kg	7.0	0.43	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.88	0.29	1
Benzene	0.36	J	ug/kg	0.88	0.29	1
Toluene	ND		ug/kg	1.8	0.96	1
Ethylbenzene	0.28	J	ug/kg	1.8	0.25	1
Chloromethane	ND		ug/kg	7.0	1.6	1
Bromomethane	ND		ug/kg	3.5	1.0	1
Vinyl chloride	ND		ug/kg	1.8	0.59	1
Chloroethane	ND		ug/kg	3.5	0.80	1
1,1-Dichloroethene	ND		ug/kg	1.8	0.42	1
trans-1,2-Dichloroethene	ND		ug/kg	2.6	0.24	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-09

Date Collected: 12/26/18 13:30

Client ID: RB02_7-9

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.88	0.24	1
1,2-Dichlorobenzene	ND		ug/kg	3.5	0.25	1
1,3-Dichlorobenzene	ND		ug/kg	3.5	0.26	1
1,4-Dichlorobenzene	ND		ug/kg	3.5	0.30	1
Methyl tert butyl ether	ND		ug/kg	3.5	0.35	1
p/m-Xylene	1.2	J	ug/kg	3.5	0.99	1
o-Xylene	0.53	J	ug/kg	1.8	0.51	1
Xylenes, Total	1.7	J	ug/kg	1.8	0.51	1
cis-1,2-Dichloroethene	ND		ug/kg	1.8	0.31	1
1,2-Dichloroethene, Total	ND		ug/kg	1.8	0.24	1
Dibromomethane	ND		ug/kg	3.5	0.42	1
Styrene	ND		ug/kg	1.8	0.34	1
Dichlorodifluoromethane	ND		ug/kg	18	1.6	1
Acetone	11	J	ug/kg	18	8.5	1
Carbon disulfide	ND		ug/kg	18	8.0	1
2-Butanone	ND		ug/kg	18	3.9	1
Vinyl acetate	ND		ug/kg	18	3.8	1
4-Methyl-2-pentanone	ND		ug/kg	18	2.2	1
1,2,3-Trichloropropane	ND		ug/kg	3.5	0.22	1
2-Hexanone	ND		ug/kg	18	2.1	1
Bromochloromethane	ND		ug/kg	3.5	0.36	1
2,2-Dichloropropane	ND		ug/kg	3.5	0.36	1
1,2-Dibromoethane	ND		ug/kg	1.8	0.49	1
1,3-Dichloropropane	ND		ug/kg	3.5	0.29	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.88	0.23	1
Bromobenzene	ND		ug/kg	3.5	0.26	1
n-Butylbenzene	ND		ug/kg	1.8	0.29	1
sec-Butylbenzene	ND		ug/kg	1.8	0.26	1
tert-Butylbenzene	ND		ug/kg	3.5	0.21	1
o-Chlorotoluene	ND		ug/kg	3.5	0.34	1
p-Chlorotoluene	ND		ug/kg	3.5	0.19	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.3	1.8	1
Hexachlorobutadiene	ND		ug/kg	7.0	0.30	1
Isopropylbenzene	ND		ug/kg	1.8	0.19	1
p-Isopropyltoluene	ND		ug/kg	1.8	0.19	1
Naphthalene	10		ug/kg	7.0	1.1	1
Acrylonitrile	ND		ug/kg	7.0	2.0	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-09
 Client ID: RB02_7-9
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:30
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.8	0.30	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.5	0.57	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.5	0.48	1
1,3,5-Trimethylbenzene	0.41	J	ug/kg	3.5	0.34	1
1,2,4-Trimethylbenzene	0.62	J	ug/kg	3.5	0.59	1
1,4-Dioxane	ND		ug/kg	180	62.	1
p-Diethylbenzene	ND		ug/kg	3.5	0.31	1
p-Ethyltoluene	ND		ug/kg	3.5	0.68	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.5	0.34	1
Ethyl ether	ND		ug/kg	3.5	0.60	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.8	2.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	104		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-10
 Client ID: RB02_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:35
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/03/19 22:19
 Analyst: MV
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.6	2.1	1
1,1-Dichloroethane	ND		ug/kg	0.92	0.13	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.92	0.21	1
1,2-Dichloropropane	ND		ug/kg	0.92	0.12	1
Dibromochloromethane	ND		ug/kg	0.92	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.92	0.24	1
Tetrachloroethene	ND		ug/kg	0.46	0.18	1
Chlorobenzene	ND		ug/kg	0.46	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.7	0.64	1
1,2-Dichloroethane	ND		ug/kg	0.92	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	0.46	0.15	1
Bromodichloromethane	ND		ug/kg	0.46	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.92	0.25	1
cis-1,3-Dichloropropene	ND		ug/kg	0.46	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.46	0.14	1
1,1-Dichloropropene	ND		ug/kg	0.46	0.15	1
Bromoform	ND		ug/kg	3.7	0.23	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.46	0.15	1
Benzene	0.17	J	ug/kg	0.46	0.15	1
Toluene	ND		ug/kg	0.92	0.50	1
Ethylbenzene	ND		ug/kg	0.92	0.13	1
Chloromethane	ND		ug/kg	3.7	0.86	1
Bromomethane	ND		ug/kg	1.8	0.54	1
Vinyl chloride	ND		ug/kg	0.92	0.31	1
Chloroethane	ND		ug/kg	1.8	0.42	1
1,1-Dichloroethene	ND		ug/kg	0.92	0.22	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-10

Date Collected: 12/26/18 13:35

Client ID: RB02_10-12

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.46	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.8	0.18	1
p/m-Xylene	ND		ug/kg	1.8	0.52	1
o-Xylene	ND		ug/kg	0.92	0.27	1
Xylenes, Total	ND		ug/kg	0.92	0.27	1
cis-1,2-Dichloroethene	ND		ug/kg	0.92	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	0.92	0.13	1
Dibromomethane	ND		ug/kg	1.8	0.22	1
Styrene	ND		ug/kg	0.92	0.18	1
Dichlorodifluoromethane	ND		ug/kg	9.2	0.84	1
Acetone	12		ug/kg	9.2	4.4	1
Carbon disulfide	ND		ug/kg	9.2	4.2	1
2-Butanone	ND		ug/kg	9.2	2.0	1
Vinyl acetate	ND		ug/kg	9.2	2.0	1
4-Methyl-2-pentanone	ND		ug/kg	9.2	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	1.8	0.12	1
2-Hexanone	ND		ug/kg	9.2	1.1	1
Bromochloromethane	ND		ug/kg	1.8	0.19	1
2,2-Dichloropropane	ND		ug/kg	1.8	0.19	1
1,2-Dibromoethane	ND		ug/kg	0.92	0.26	1
1,3-Dichloropropane	ND		ug/kg	1.8	0.15	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.46	0.12	1
Bromobenzene	ND		ug/kg	1.8	0.13	1
n-Butylbenzene	ND		ug/kg	0.92	0.15	1
sec-Butylbenzene	ND		ug/kg	0.92	0.13	1
tert-Butylbenzene	ND		ug/kg	1.8	0.11	1
o-Chlorotoluene	ND		ug/kg	1.8	0.18	1
p-Chlorotoluene	ND		ug/kg	1.8	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.8	0.92	1
Hexachlorobutadiene	ND		ug/kg	3.7	0.16	1
Isopropylbenzene	ND		ug/kg	0.92	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.92	0.10	1
Naphthalene	ND		ug/kg	3.7	0.60	1
Acrylonitrile	ND		ug/kg	3.7	1.0	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-10
Client ID: RB02_10-12
Sample Location: BRONX, NY

Date Collected: 12/26/18 13:35
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.92	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	0.30	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	0.25	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	0.31	1
1,4-Dioxane	ND		ug/kg	92	32.	1
p-Diethylbenzene	ND		ug/kg	1.8	0.16	1
p-Ethyltoluene	ND		ug/kg	1.8	0.35	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.8	0.18	1
Ethyl ether	ND		ug/kg	1.8	0.31	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.6	1.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	103		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-11
 Client ID: RB02_13-15
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:40
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/03/19 22:47
 Analyst: MV
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.4	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.13	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.29	1
Tetrachloroethene	ND		ug/kg	0.54	0.21	1
Chlorobenzene	ND		ug/kg	0.54	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.3	0.75	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.54	0.18	1
Bromodichloromethane	ND		ug/kg	0.54	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.54	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.54	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.54	0.17	1
Bromoform	ND		ug/kg	4.3	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.54	0.18	1
Benzene	0.38	J	ug/kg	0.54	0.18	1
Toluene	ND		ug/kg	1.1	0.58	1
Ethylbenzene	0.51	J	ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.3	1.0	1
Bromomethane	ND		ug/kg	2.2	0.62	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.2	0.49	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-11

Date Collected: 12/26/18 13:40

Client ID: RB02_13-15

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.54	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.60	1
o-Xylene	ND		ug/kg	1.1	0.31	1
Xylenes, Total	ND		ug/kg	1.1	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.2	0.26	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	0.98	1
Acetone	43		ug/kg	11	5.2	1
Carbon disulfide	ND		ug/kg	11	4.9	1
2-Butanone	7.6	J	ug/kg	11	2.4	1
Vinyl acetate	ND		ug/kg	11	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.2	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.2	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
1,3-Dichloropropane	ND		ug/kg	2.2	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.54	0.14	1
Bromobenzene	ND		ug/kg	2.2	0.16	1
n-Butylbenzene	0.22	J	ug/kg	1.1	0.18	1
sec-Butylbenzene	0.83	J	ug/kg	1.1	0.16	1
tert-Butylbenzene	0.22	J	ug/kg	2.2	0.13	1
o-Chlorotoluene	ND		ug/kg	2.2	0.20	1
p-Chlorotoluene	ND		ug/kg	2.2	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.3	0.18	1
Isopropylbenzene	0.62	J	ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	4.5		ug/kg	4.3	0.70	1
Acrylonitrile	ND		ug/kg	4.3	1.2	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-11
 Client ID: RB02_13-15
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:40
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	0.28	J	ug/kg	1.1	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.35	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.21	1
1,2,4-Trimethylbenzene	0.87	J	ug/kg	2.2	0.36	1
1,4-Dioxane	ND		ug/kg	110	38.	1
p-Diethylbenzene	ND		ug/kg	2.2	0.19	1
p-Ethyltoluene	ND		ug/kg	2.2	0.41	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.2	0.20	1
Ethyl ether	ND		ug/kg	2.2	0.37	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.4	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	105		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	110		70-130
Dibromofluoromethane	99		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-12
 Client ID: SOTB02_122618
 Sample Location: BRONX, NY

Date Collected: 12/26/18 00:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 16:16
 Analyst: KJD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-12
Client ID: SOTB02_122618
Sample Location: BRONX, NY

Date Collected: 12/26/18 00:00
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-12
 Client ID: SOTB02_122618
 Sample Location: BRONX, NY

Date Collected: 12/26/18 00:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	103		70-130

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/02/19 09:56
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12 Batch: WG1194042-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/02/19 09:56
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12 Batch: WG1194042-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
 Analytical Date: 01/02/19 09:56
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12 Batch: WG1194042-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	104		70-130

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/03/19 19:06
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 02,07-11 Batch: WG1194592-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/03/19 19:06
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 02,07-11 Batch: WG1194592-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8260C
 Analytical Date: 01/03/19 19:06
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 02,07-11 Batch: WG1194592-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	112		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	101		70-130



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/03/19 18:48
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-04,06 Batch: WG1194605-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/03/19 18:48
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-04,06 Batch: WG1194605-5					
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/03/19 18:48
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-04,06 Batch: WG1194605-5					
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	5000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	102		70-130

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/04/19 07:56
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1194817-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/04/19 07:56
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1194817-5					
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/04/19 07:56
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 05 Batch: WG1194817-5					
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	5000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	104		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12 Batch: WG1194042-3 WG1194042-4								
Methylene chloride	100		110		70-130	10		20
1,1-Dichloroethane	110		110		70-130	0		20
Chloroform	100		110		70-130	10		20
Carbon tetrachloride	100		110		63-132	10		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	100		110		63-130	10		20
1,1,2-Trichloroethane	100		110		70-130	10		20
Tetrachloroethene	100		110		70-130	10		20
Chlorobenzene	100		110		75-130	10		20
Trichlorofluoromethane	100		110		62-150	10		20
1,2-Dichloroethane	100		110		70-130	10		20
1,1,1-Trichloroethane	100		110		67-130	10		20
Bromodichloromethane	110		110		67-130	0		20
trans-1,3-Dichloropropene	100		110		70-130	10		20
cis-1,3-Dichloropropene	100		110		70-130	10		20
1,1-Dichloropropene	100		110		70-130	10		20
Bromoform	100		100		54-136	0		20
1,1,1,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	100		110		70-130	10		20
Toluene	100		110		70-130	10		20
Ethylbenzene	100		110		70-130	10		20
Chloromethane	90		92		64-130	2		20
Bromomethane	48		50		39-139	4		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12 Batch: WG1194042-3 WG1194042-4								
Vinyl chloride	100		100		55-140	0		20
Chloroethane	100		110		55-138	10		20
1,1-Dichloroethene	100		110		61-145	10		20
trans-1,2-Dichloroethene	100		110		70-130	10		20
Trichloroethene	100		110		70-130	10		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	99		100		70-130	1		20
Methyl tert butyl ether	100		110		63-130	10		20
p/m-Xylene	100		110		70-130	10		20
o-Xylene	100		110		70-130	10		20
cis-1,2-Dichloroethene	100		110		70-130	10		20
Dibromomethane	100		110		70-130	10		20
1,2,3-Trichloropropane	110		120		64-130	9		20
Acrylonitrile	97		110		70-130	13		20
Styrene	100		105		70-130	5		20
Dichlorodifluoromethane	110		110		36-147	0		20
Acetone	130		130		58-148	0		20
Carbon disulfide	100		110		51-130	10		20
2-Butanone	83		84		63-138	1		20
Vinyl acetate	110		120		70-130	9		20
4-Methyl-2-pentanone	96		100		59-130	4		20
2-Hexanone	98		110		57-130	12		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12 Batch: WG1194042-3 WG1194042-4								
Bromochloromethane	110		120		70-130	9		20
2,2-Dichloropropane	100		110		63-133	10		20
1,2-Dibromoethane	100		110		70-130	10		20
1,3-Dichloropropane	100		110		70-130	10		20
1,1,1,2-Tetrachloroethane	100		110		64-130	10		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	110		110		53-136	0		20
sec-Butylbenzene	100		110		70-130	10		20
tert-Butylbenzene	100		110		70-130	10		20
o-Chlorotoluene	93		97		70-130	4		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	94		100		41-144	6		20
Hexachlorobutadiene	110		110		63-130	0		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	110		110		70-130	0		20
Naphthalene	96		100		70-130	4		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	98		100		70-130	2		20
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	128		126		56-162	2		20
p-Diethylbenzene	110		110		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12 Batch: WG1194042-3 WG1194042-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	100		100		70-130	0		20
Ethyl ether	110		110		59-134	0		20
trans-1,4-Dichloro-2-butene	94		97		70-130	3		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	108		109		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	104		101		70-130
Dibromofluoromethane	103		104		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02,07-11 Batch: WG1194592-3 WG1194592-4								
Methylene chloride	84		81		70-130	4		30
1,1-Dichloroethane	93		90		70-130	3		30
Chloroform	90		88		70-130	2		30
Carbon tetrachloride	92		91		70-130	1		30
1,2-Dichloropropane	92		90		70-130	2		30
Dibromochloromethane	92		96		70-130	4		30
1,1,2-Trichloroethane	97		99		70-130	2		30
Tetrachloroethene	101		103		70-130	2		30
Chlorobenzene	96		92		70-130	4		30
Trichlorofluoromethane	90		85		70-139	6		30
1,2-Dichloroethane	92		90		70-130	2		30
1,1,1-Trichloroethane	96		94		70-130	2		30
Bromodichloromethane	92		91		70-130	1		30
trans-1,3-Dichloropropene	93		96		70-130	3		30
cis-1,3-Dichloropropene	87		86		70-130	1		30
1,1-Dichloropropene	105		102		70-130	3		30
Bromoform	97		91		70-130	6		30
1,1,2,2-Tetrachloroethane	95		91		70-130	4		30
Benzene	93		90		70-130	3		30
Toluene	102		102		70-130	0		30
Ethylbenzene	105		100		70-130	5		30
Chloromethane	87		81		52-130	7		30
Bromomethane	72		69		57-147	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02,07-11 Batch: WG1194592-3 WG1194592-4								
Vinyl chloride	87		82		67-130	6		30
Chloroethane	83		78		50-151	6		30
1,1-Dichloroethene	77		82		65-135	6		30
trans-1,2-Dichloroethene	87		86		70-130	1		30
Trichloroethene	94		92		70-130	2		30
1,2-Dichlorobenzene	95		86		70-130	10		30
1,3-Dichlorobenzene	99		98		70-130	1		30
1,4-Dichlorobenzene	95		93		70-130	2		30
Methyl tert butyl ether	87		87		66-130	0		30
p/m-Xylene	106		99		70-130	7		30
o-Xylene	99		99		70-130	0		30
cis-1,2-Dichloroethene	88		87		70-130	1		30
Dibromomethane	89		89		70-130	0		30
Styrene	90		88		70-130	2		30
Dichlorodifluoromethane	60		57		30-146	5		30
Acetone	100		101		54-140	1		30
Carbon disulfide	78		82		59-130	5		30
2-Butanone	87		93		70-130	7		30
Vinyl acetate	103		102		70-130	1		30
4-Methyl-2-pentanone	87		94		70-130	8		30
1,2,3-Trichloropropane	96		94		68-130	2		30
2-Hexanone	90		99		70-130	10		30
Bromochloromethane	86		86		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02,07-11 Batch: WG1194592-3 WG1194592-4								
2,2-Dichloropropane	98		96		70-130	2		30
1,2-Dibromoethane	95		100		70-130	5		30
1,3-Dichloropropane	98		102		69-130	4		30
1,1,1,2-Tetrachloroethane	97		94		70-130	3		30
Bromobenzene	99		92		70-130	7		30
n-Butylbenzene	108		102		70-130	6		30
sec-Butylbenzene	103		101		70-130	2		30
tert-Butylbenzene	113		108		70-130	5		30
o-Chlorotoluene	104		97		70-130	7		30
p-Chlorotoluene	111		101		70-130	9		30
1,2-Dibromo-3-chloropropane	84		87		68-130	4		30
Hexachlorobutadiene	99		95		67-130	4		30
Isopropylbenzene	115		106		70-130	8		30
p-Isopropyltoluene	109		106		70-130	3		30
Naphthalene	90		87		70-130	3		30
Acrylonitrile	80		83		70-130	4		30
n-Propylbenzene	112		100		70-130	11		30
1,2,3-Trichlorobenzene	93		89		70-130	4		30
1,2,4-Trichlorobenzene	98		94		70-130	4		30
1,3,5-Trimethylbenzene	110		103		70-130	7		30
1,2,4-Trimethylbenzene	114		111		70-130	3		30
1,4-Dioxane	104		110		65-136	6		30
p-Diethylbenzene	105		100		70-130	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 02,07-11 Batch: WG1194592-3 WG1194592-4								
p-Ethyltoluene	108		98		70-130	10		30
1,2,4,5-Tetramethylbenzene	92		86		70-130	7		30
Ethyl ether	76		73		67-130	4		30
trans-1,4-Dichloro-2-butene	98		88		70-130	11		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	107		105		70-130
Toluene-d8	108		113		70-130
4-Bromofluorobenzene	111		104		70-130
Dibromofluoromethane	97		97		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG1194605-3 WG1194605-4								
Methylene chloride	85		84		70-130	1		30
1,1-Dichloroethane	87		86		70-130	1		30
Chloroform	92		93		70-130	1		30
Carbon tetrachloride	97		96		70-130	1		30
1,2-Dichloropropane	88		88		70-130	0		30
Dibromochloromethane	96		96		70-130	0		30
1,1,2-Trichloroethane	93		95		70-130	2		30
Tetrachloroethene	92		93		70-130	1		30
Chlorobenzene	90		91		70-130	1		30
Trichlorofluoromethane	63	Q	64	Q	70-139	2		30
1,2-Dichloroethane	88		89		70-130	1		30
1,1,1-Trichloroethane	99		100		70-130	1		30
Bromodichloromethane	101		104		70-130	3		30
trans-1,3-Dichloropropene	101		102		70-130	1		30
cis-1,3-Dichloropropene	105		106		70-130	1		30
1,1-Dichloropropene	101		101		70-130	0		30
Bromoform	96		94		70-130	2		30
1,1,2,2-Tetrachloroethane	99		98		70-130	1		30
Benzene	95		94		70-130	1		30
Toluene	91		90		70-130	1		30
Ethylbenzene	94		94		70-130	0		30
Chloromethane	70		69		52-130	1		30
Bromomethane	42	Q	46	Q	57-147	9		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG1194605-3 WG1194605-4								
Vinyl chloride	63	Q	63	Q	67-130	0		30
Chloroethane	48	Q	48	Q	50-151	0		30
1,1-Dichloroethene	95		98		65-135	3		30
trans-1,2-Dichloroethene	94		95		70-130	1		30
Trichloroethene	97		96		70-130	1		30
1,2-Dichlorobenzene	89		88		70-130	1		30
1,3-Dichlorobenzene	90		89		70-130	1		30
1,4-Dichlorobenzene	88		88		70-130	0		30
Methyl tert butyl ether	104		104		66-130	0		30
p/m-Xylene	92		92		70-130	0		30
o-Xylene	94		94		70-130	0		30
cis-1,2-Dichloroethene	95		95		70-130	0		30
Dibromomethane	100		100		70-130	0		30
Styrene	87		86		70-130	1		30
Dichlorodifluoromethane	90		90		30-146	0		30
Acetone	117		111		54-140	5		30
Carbon disulfide	88		88		59-130	0		30
2-Butanone	93		89		70-130	4		30
Vinyl acetate	53	Q	64	Q	70-130	19		30
4-Methyl-2-pentanone	99		97		70-130	2		30
1,2,3-Trichloropropane	96		94		68-130	2		30
2-Hexanone	102		97		70-130	5		30
Bromochloromethane	98		98		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG1194605-3 WG1194605-4								
2,2-Dichloropropane	102		101		70-130	1		30
1,2-Dibromoethane	99		99		70-130	0		30
1,3-Dichloropropane	96		96		69-130	0		30
1,1,1,2-Tetrachloroethane	95		95		70-130	0		30
Bromobenzene	92		91		70-130	1		30
n-Butylbenzene	93		92		70-130	1		30
sec-Butylbenzene	95		94		70-130	1		30
tert-Butylbenzene	95		94		70-130	1		30
o-Chlorotoluene	96		93		70-130	3		30
p-Chlorotoluene	98		97		70-130	1		30
1,2-Dibromo-3-chloropropane	105		102		68-130	3		30
Hexachlorobutadiene	91		91		67-130	0		30
Isopropylbenzene	97		96		70-130	1		30
p-Isopropyltoluene	95		94		70-130	1		30
Naphthalene	97		96		70-130	1		30
Acrylonitrile	86		86		70-130	0		30
n-Propylbenzene	95		94		70-130	1		30
1,2,3-Trichlorobenzene	91		92		70-130	1		30
1,2,4-Trichlorobenzene	91		91		70-130	0		30
1,3,5-Trimethylbenzene	96		95		70-130	1		30
1,2,4-Trimethylbenzene	95		95		70-130	0		30
1,4-Dioxane	99		101		65-136	2		30
p-Diethylbenzene	95		93		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG1194605-3 WG1194605-4								
p-Ethyltoluene	98		98		70-130	0		30
1,2,4,5-Tetramethylbenzene	96		95		70-130	1		30
Ethyl ether	71		71		67-130	0		30
trans-1,4-Dichloro-2-butene	100		96		70-130	4		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	99		100		70-130
Toluene-d8	103		102		70-130
4-Bromofluorobenzene	117		116		70-130
Dibromofluoromethane	102		102		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1194817-3 WG1194817-4								
Methylene chloride	86		84		70-130	2		30
1,1-Dichloroethane	87		86		70-130	1		30
Chloroform	95		95		70-130	0		30
Carbon tetrachloride	100		100		70-130	0		30
1,2-Dichloropropane	87		88		70-130	1		30
Dibromochloromethane	93		94		70-130	1		30
1,1,2-Trichloroethane	91		92		70-130	1		30
Tetrachloroethene	97		94		70-130	3		30
Chlorobenzene	93		92		70-130	1		30
Trichlorofluoromethane	74		75		70-139	1		30
1,2-Dichloroethane	87		89		70-130	2		30
1,1,1-Trichloroethane	102		101		70-130	1		30
Bromodichloromethane	101		102		70-130	1		30
trans-1,3-Dichloropropene	98		97		70-130	1		30
cis-1,3-Dichloropropene	104		105		70-130	1		30
1,1-Dichloropropene	102		100		70-130	2		30
Bromoform	91		92		70-130	1		30
1,1,2,2-Tetrachloroethane	94		95		70-130	1		30
Benzene	96		95		70-130	1		30
Toluene	93		91		70-130	2		30
Ethylbenzene	95		94		70-130	1		30
Chloromethane	71		68		52-130	4		30
Bromomethane	57		56	Q	57-147	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1194817-3 WG1194817-4								
Vinyl chloride	70		70		67-130	0		30
Chloroethane	56		55		50-151	2		30
1,1-Dichloroethene	99		97		65-135	2		30
trans-1,2-Dichloroethene	98		96		70-130	2		30
Trichloroethene	98		98		70-130	0		30
1,2-Dichlorobenzene	90		89		70-130	1		30
1,3-Dichlorobenzene	91		90		70-130	1		30
1,4-Dichlorobenzene	90		89		70-130	1		30
Methyl tert butyl ether	101		103		66-130	2		30
p/m-Xylene	94		93		70-130	1		30
o-Xylene	97		95		70-130	2		30
cis-1,2-Dichloroethene	98		98		70-130	0		30
Dibromomethane	98		100		70-130	2		30
Styrene	87		87		70-130	0		30
Dichlorodifluoromethane	91		88		30-146	3		30
Acetone	109		101		54-140	8		30
Carbon disulfide	91		89		59-130	2		30
2-Butanone	80		93		70-130	15		30
Vinyl acetate	88		92		70-130	4		30
4-Methyl-2-pentanone	86		88		70-130	2		30
1,2,3-Trichloropropane	88		91		68-130	3		30
2-Hexanone	94		94		70-130	0		30
Bromochloromethane	98		99		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1194817-3 WG1194817-4								
2,2-Dichloropropane	103		102		70-130	1		30
1,2-Dibromoethane	96		97		70-130	1		30
1,3-Dichloropropane	94		94		69-130	0		30
1,1,1,2-Tetrachloroethane	96		96		70-130	0		30
Bromobenzene	93		92		70-130	1		30
n-Butylbenzene	94		92		70-130	2		30
sec-Butylbenzene	96		93		70-130	3		30
tert-Butylbenzene	96		94		70-130	2		30
o-Chlorotoluene	94		94		70-130	0		30
p-Chlorotoluene	96		96		70-130	0		30
1,2-Dibromo-3-chloropropane	95		98		68-130	3		30
Hexachlorobutadiene	92		89		67-130	3		30
Isopropylbenzene	97		95		70-130	2		30
p-Isopropyltoluene	96		94		70-130	2		30
Naphthalene	94		95		70-130	1		30
Acrylonitrile	75		78		70-130	4		30
n-Propylbenzene	94		92		70-130	2		30
1,2,3-Trichlorobenzene	92		92		70-130	0		30
1,2,4-Trichlorobenzene	93		92		70-130	1		30
1,3,5-Trimethylbenzene	96		95		70-130	1		30
1,2,4-Trimethylbenzene	97		95		70-130	2		30
1,4-Dioxane	90		94		65-136	4		30
p-Diethylbenzene	95		93		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853111

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 05 Batch: WG1194817-3 WG1194817-4								
p-Ethyltoluene	100		98		70-130	2		30
1,2,4,5-Tetramethylbenzene	96		95		70-130	1		30
Ethyl ether	75		76		67-130	1		30
trans-1,4-Dichloro-2-butene	85		87		70-130	2		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	95		97		70-130
Toluene-d8	101		100		70-130
4-Bromofluorobenzene	111		111		70-130
Dibromofluoromethane	102		104		70-130

SEMIVOLATILES

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-01 D
 Client ID: RB03_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:45
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/31/18 21:49
 Analyst: ALS
 Percent Solids: 94%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	1400	180	10
1,2,4-Trichlorobenzene	ND		ug/kg	1800	200	10
Hexachlorobenzene	ND		ug/kg	1000	200	10
Bis(2-chloroethyl)ether	ND		ug/kg	1600	240	10
2-Chloronaphthalene	ND		ug/kg	1800	170	10
1,2-Dichlorobenzene	ND		ug/kg	1800	310	10
1,3-Dichlorobenzene	ND		ug/kg	1800	300	10
1,4-Dichlorobenzene	ND		ug/kg	1800	310	10
3,3'-Dichlorobenzidine	ND		ug/kg	1800	470	10
2,4-Dinitrotoluene	ND		ug/kg	1800	350	10
2,6-Dinitrotoluene	ND		ug/kg	1800	300	10
Fluoranthene	1400		ug/kg	1000	200	10
4-Chlorophenyl phenyl ether	ND		ug/kg	1800	190	10
4-Bromophenyl phenyl ether	ND		ug/kg	1800	270	10
Bis(2-chloroisopropyl)ether	ND		ug/kg	2100	300	10
Bis(2-chloroethoxy)methane	ND		ug/kg	1900	180	10
Hexachlorobutadiene	ND		ug/kg	1800	260	10
Hexachlorocyclopentadiene	ND		ug/kg	5000	1600	10
Hexachloroethane	ND		ug/kg	1400	280	10
Isophorone	ND		ug/kg	1600	230	10
Naphthalene	760	J	ug/kg	1800	210	10
Nitrobenzene	ND		ug/kg	1600	260	10
NDPA/DPA	ND		ug/kg	1400	200	10
n-Nitrosodi-n-propylamine	ND		ug/kg	1800	270	10
Bis(2-ethylhexyl)phthalate	ND		ug/kg	1800	610	10
Butyl benzyl phthalate	ND		ug/kg	1800	440	10
Di-n-butylphthalate	ND		ug/kg	1800	330	10
Di-n-octylphthalate	ND		ug/kg	1800	600	10

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-01 D

Date Collected: 12/26/18 09:45

Client ID: RB03_0-2

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	1800	160	10
Dimethyl phthalate	ND		ug/kg	1800	370	10
Benzo(a)anthracene	1000		ug/kg	1000	200	10
Benzo(a)pyrene	1400		ug/kg	1400	430	10
Benzo(b)fluoranthene	1700		ug/kg	1000	300	10
Benzo(k)fluoranthene	580	J	ug/kg	1000	280	10
Chrysene	1100		ug/kg	1000	180	10
Acenaphthylene	400	J	ug/kg	1400	270	10
Anthracene	ND		ug/kg	1000	340	10
Benzo(ghi)perylene	1400		ug/kg	1400	210	10
Fluorene	ND		ug/kg	1800	170	10
Phenanthrene	490	J	ug/kg	1000	210	10
Dibenzo(a,h)anthracene	280	J	ug/kg	1000	200	10
Indeno(1,2,3-cd)pyrene	1300	J	ug/kg	1400	240	10
Pyrene	1400		ug/kg	1000	170	10
Biphenyl	ND		ug/kg	4000	410	10
4-Chloroaniline	ND		ug/kg	1800	320	10
2-Nitroaniline	ND		ug/kg	1800	340	10
3-Nitroaniline	ND		ug/kg	1800	330	10
4-Nitroaniline	ND		ug/kg	1800	720	10
Dibenzofuran	ND		ug/kg	1800	160	10
2-Methylnaphthalene	370	J	ug/kg	2100	210	10
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	1800	180	10
Acetophenone	380	J	ug/kg	1800	220	10
2,4,6-Trichlorophenol	ND		ug/kg	1000	330	10
p-Chloro-m-cresol	ND		ug/kg	1800	260	10
2-Chlorophenol	ND		ug/kg	1800	210	10
2,4-Dichlorophenol	ND		ug/kg	1600	280	10
2,4-Dimethylphenol	ND		ug/kg	1800	580	10
2-Nitrophenol	ND		ug/kg	3800	660	10
4-Nitrophenol	ND		ug/kg	2400	720	10
2,4-Dinitrophenol	ND		ug/kg	8400	820	10
4,6-Dinitro-o-cresol	ND		ug/kg	4600	840	10
Pentachlorophenol	ND		ug/kg	1400	380	10
Phenol	ND		ug/kg	1800	260	10
2-Methylphenol	ND		ug/kg	1800	270	10
3-Methylphenol/4-Methylphenol	ND		ug/kg	2500	270	10

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-01 D
 Client ID: RB03_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:45
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatiles Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	1800	340	10
Benzoic Acid	ND		ug/kg	5700	1800	10
Benzyl Alcohol	ND		ug/kg	1800	540	10
Carbazole	ND		ug/kg	1800	170	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	71		25-120
Phenol-d6	75		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	70		10-136
4-Terphenyl-d14	65		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-02 D
 Client ID: RB03_2-3
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:50
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/31/18 22:15
 Analyst: ALS
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	1500	190	10
1,2,4-Trichlorobenzene	ND		ug/kg	1800	210	10
Hexachlorobenzene	ND		ug/kg	1100	200	10
Bis(2-chloroethyl)ether	ND		ug/kg	1600	250	10
2-Chloronaphthalene	ND		ug/kg	1800	180	10
1,2-Dichlorobenzene	ND		ug/kg	1800	330	10
1,3-Dichlorobenzene	ND		ug/kg	1800	320	10
1,4-Dichlorobenzene	ND		ug/kg	1800	320	10
3,3'-Dichlorobenzidine	ND		ug/kg	1800	490	10
2,4-Dinitrotoluene	ND		ug/kg	1800	370	10
2,6-Dinitrotoluene	ND		ug/kg	1800	310	10
Fluoranthene	650	J	ug/kg	1100	210	10
4-Chlorophenyl phenyl ether	ND		ug/kg	1800	200	10
4-Bromophenyl phenyl ether	ND		ug/kg	1800	280	10
Bis(2-chloroisopropyl)ether	ND		ug/kg	2200	310	10
Bis(2-chloroethoxy)methane	ND		ug/kg	2000	180	10
Hexachlorobutadiene	ND		ug/kg	1800	270	10
Hexachlorocyclopentadiene	ND		ug/kg	5200	1600	10
Hexachloroethane	ND		ug/kg	1500	300	10
Isophorone	ND		ug/kg	1600	240	10
Naphthalene	ND		ug/kg	1800	220	10
Nitrobenzene	ND		ug/kg	1600	270	10
NDPA/DPA	ND		ug/kg	1500	210	10
n-Nitrosodi-n-propylamine	ND		ug/kg	1800	280	10
Bis(2-ethylhexyl)phthalate	ND		ug/kg	1800	630	10
Butyl benzyl phthalate	ND		ug/kg	1800	460	10
Di-n-butylphthalate	ND		ug/kg	1800	350	10
Di-n-octylphthalate	ND		ug/kg	1800	620	10

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-02 D

Date Collected: 12/26/18 09:50

Client ID: RB03_2-3

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	1800	170	10
Dimethyl phthalate	ND		ug/kg	1800	380	10
Benzo(a)anthracene	520	J	ug/kg	1100	210	10
Benzo(a)pyrene	630	J	ug/kg	1500	450	10
Benzo(b)fluoranthene	700	J	ug/kg	1100	310	10
Benzo(k)fluoranthene	ND		ug/kg	1100	290	10
Chrysene	470	J	ug/kg	1100	190	10
Acenaphthylene	ND		ug/kg	1500	280	10
Anthracene	ND		ug/kg	1100	360	10
Benzo(ghi)perylene	700	J	ug/kg	1500	220	10
Fluorene	ND		ug/kg	1800	180	10
Phenanthrene	310	J	ug/kg	1100	220	10
Dibenzo(a,h)anthracene	ND		ug/kg	1100	210	10
Indeno(1,2,3-cd)pyrene	500	J	ug/kg	1500	260	10
Pyrene	720	J	ug/kg	1100	180	10
Biphenyl	ND		ug/kg	4200	420	10
4-Chloroaniline	ND		ug/kg	1800	330	10
2-Nitroaniline	ND		ug/kg	1800	350	10
3-Nitroaniline	ND		ug/kg	1800	340	10
4-Nitroaniline	ND		ug/kg	1800	760	10
Dibenzofuran	ND		ug/kg	1800	170	10
2-Methylnaphthalene	ND		ug/kg	2200	220	10
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	1800	190	10
Acetophenone	ND		ug/kg	1800	230	10
2,4,6-Trichlorophenol	ND		ug/kg	1100	350	10
p-Chloro-m-cresol	ND		ug/kg	1800	270	10
2-Chlorophenol	ND		ug/kg	1800	220	10
2,4-Dichlorophenol	ND		ug/kg	1600	290	10
2,4-Dimethylphenol	ND		ug/kg	1800	600	10
2-Nitrophenol	ND		ug/kg	4000	690	10
4-Nitrophenol	ND		ug/kg	2600	750	10
2,4-Dinitrophenol	ND		ug/kg	8800	850	10
4,6-Dinitro-o-cresol	ND		ug/kg	4800	880	10
Pentachlorophenol	ND		ug/kg	1500	400	10
Phenol	ND		ug/kg	1800	280	10
2-Methylphenol	ND		ug/kg	1800	280	10
3-Methylphenol/4-Methylphenol	ND		ug/kg	2600	290	10

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-02 D

Date Collected: 12/26/18 09:50

Client ID: RB03_2-3

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	1800	350	10
Benzoic Acid	ND		ug/kg	5900	1800	10
Benzyl Alcohol	ND		ug/kg	1800	560	10
Carbazole	ND		ug/kg	1800	180	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		25-120
Phenol-d6	44		10-120
Nitrobenzene-d5	34		23-120
2-Fluorobiphenyl	43		30-120
2,4,6-Tribromophenol	25		10-136
4-Terphenyl-d14	38		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-03 D
 Client ID: RB03_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:55
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/31/18 22:41
 Analyst: ALS
 Percent Solids: 82%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	6500		ug/kg	1600	210	10
1,2,4-Trichlorobenzene	ND		ug/kg	2000	230	10
Hexachlorobenzene	ND		ug/kg	1200	220	10
Bis(2-chloroethyl)ether	ND		ug/kg	1800	270	10
2-Chloronaphthalene	ND		ug/kg	2000	200	10
1,2-Dichlorobenzene	ND		ug/kg	2000	360	10
1,3-Dichlorobenzene	ND		ug/kg	2000	340	10
1,4-Dichlorobenzene	ND		ug/kg	2000	350	10
3,3'-Dichlorobenzidine	ND		ug/kg	2000	530	10
2,4-Dinitrotoluene	ND		ug/kg	2000	400	10
2,6-Dinitrotoluene	ND		ug/kg	2000	340	10
Fluoranthene	16000		ug/kg	1200	230	10
4-Chlorophenyl phenyl ether	ND		ug/kg	2000	210	10
4-Bromophenyl phenyl ether	ND		ug/kg	2000	300	10
Bis(2-chloroisopropyl)ether	ND		ug/kg	2400	340	10
Bis(2-chloroethoxy)methane	ND		ug/kg	2200	200	10
Hexachlorobutadiene	ND		ug/kg	2000	290	10
Hexachlorocyclopentadiene	ND		ug/kg	5700	1800	10
Hexachloroethane	ND		ug/kg	1600	320	10
Isophorone	ND		ug/kg	1800	260	10
Naphthalene	3100		ug/kg	2000	240	10
Nitrobenzene	ND		ug/kg	1800	300	10
NDPA/DPA	ND		ug/kg	1600	230	10
n-Nitrosodi-n-propylamine	ND		ug/kg	2000	310	10
Bis(2-ethylhexyl)phthalate	ND		ug/kg	2000	690	10
Butyl benzyl phthalate	ND		ug/kg	2000	500	10
Di-n-butylphthalate	ND		ug/kg	2000	380	10
Di-n-octylphthalate	ND		ug/kg	2000	680	10

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-03 D
 Client ID: RB03_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:55
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	2000	180	10
Dimethyl phthalate	ND		ug/kg	2000	420	10
Benzo(a)anthracene	8600		ug/kg	1200	220	10
Benzo(a)pyrene	9000		ug/kg	1600	490	10
Benzo(b)fluoranthene	6400		ug/kg	1200	340	10
Benzo(k)fluoranthene	1300		ug/kg	1200	320	10
Chrysene	8000		ug/kg	1200	210	10
Acenaphthylene	9800		ug/kg	1600	310	10
Anthracene	2600		ug/kg	1200	390	10
Benzo(ghi)perylene	5300		ug/kg	1600	230	10
Fluorene	11000		ug/kg	2000	190	10
Phenanthrene	3400		ug/kg	1200	240	10
Dibenzo(a,h)anthracene	780	J	ug/kg	1200	230	10
Indeno(1,2,3-cd)pyrene	3400		ug/kg	1600	280	10
Pyrene	31000		ug/kg	1200	200	10
Biphenyl	500	J	ug/kg	4500	460	10
4-Chloroaniline	ND		ug/kg	2000	360	10
2-Nitroaniline	ND		ug/kg	2000	380	10
3-Nitroaniline	ND		ug/kg	2000	380	10
4-Nitroaniline	ND		ug/kg	2000	820	10
Dibenzofuran	660	J	ug/kg	2000	190	10
2-Methylnaphthalene	610	J	ug/kg	2400	240	10
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	2000	210	10
Acetophenone	ND		ug/kg	2000	250	10
2,4,6-Trichlorophenol	ND		ug/kg	1200	380	10
p-Chloro-m-cresol	ND		ug/kg	2000	300	10
2-Chlorophenol	ND		ug/kg	2000	240	10
2,4-Dichlorophenol	ND		ug/kg	1800	320	10
2,4-Dimethylphenol	ND		ug/kg	2000	660	10
2-Nitrophenol	ND		ug/kg	4300	750	10
4-Nitrophenol	ND		ug/kg	2800	810	10
2,4-Dinitrophenol	ND		ug/kg	9600	930	10
4,6-Dinitro-o-cresol	ND		ug/kg	5200	960	10
Pentachlorophenol	ND		ug/kg	1600	440	10
Phenol	ND		ug/kg	2000	300	10
2-Methylphenol	ND		ug/kg	2000	310	10
3-Methylphenol/4-Methylphenol	ND		ug/kg	2900	310	10

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-03 D

Date Collected: 12/26/18 09:55

Client ID: RB03_10-12

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	2000	380	10
Benzoic Acid	ND		ug/kg	6500	2000	10
Benzyl Alcohol	ND		ug/kg	2000	610	10
Carbazole	290	J	ug/kg	2000	190	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		25-120
Phenol-d6	62		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	72		30-120
2,4,6-Tribromophenol	63		10-136
4-Terphenyl-d14	64		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-04 D
 Client ID: RB12_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 11:55
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/31/18 23:08
 Analyst: ALS
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	4000		ug/kg	1400	180	10
1,2,4-Trichlorobenzene	ND		ug/kg	1800	200	10
Hexachlorobenzene	ND		ug/kg	1100	200	10
Bis(2-chloroethyl)ether	ND		ug/kg	1600	240	10
2-Chloronaphthalene	ND		ug/kg	1800	180	10
1,2-Dichlorobenzene	ND		ug/kg	1800	320	10
1,3-Dichlorobenzene	ND		ug/kg	1800	310	10
1,4-Dichlorobenzene	ND		ug/kg	1800	310	10
3,3'-Dichlorobenzidine	ND		ug/kg	1800	480	10
2,4-Dinitrotoluene	ND		ug/kg	1800	360	10
2,6-Dinitrotoluene	ND		ug/kg	1800	310	10
Fluoranthene	41000		ug/kg	1100	200	10
4-Chlorophenyl phenyl ether	ND		ug/kg	1800	190	10
4-Bromophenyl phenyl ether	ND		ug/kg	1800	270	10
Bis(2-chloroisopropyl)ether	ND		ug/kg	2100	300	10
Bis(2-chloroethoxy)methane	ND		ug/kg	1900	180	10
Hexachlorobutadiene	ND		ug/kg	1800	260	10
Hexachlorocyclopentadiene	ND		ug/kg	5100	1600	10
Hexachloroethane	ND		ug/kg	1400	290	10
Isophorone	ND		ug/kg	1600	230	10
Naphthalene	1200	J	ug/kg	1800	220	10
Nitrobenzene	ND		ug/kg	1600	260	10
NDPA/DPA	ND		ug/kg	1400	200	10
n-Nitrosodi-n-propylamine	ND		ug/kg	1800	280	10
Bis(2-ethylhexyl)phthalate	ND		ug/kg	1800	620	10
Butyl benzyl phthalate	ND		ug/kg	1800	450	10
Di-n-butylphthalate	ND		ug/kg	1800	340	10
Di-n-octylphthalate	ND		ug/kg	1800	610	10

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-04 D

Date Collected: 12/26/18 11:55

Client ID: RB12_0-2

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	1800	160	10
Dimethyl phthalate	ND		ug/kg	1800	380	10
Benzo(a)anthracene	20000		ug/kg	1100	200	10
Benzo(a)pyrene	19000		ug/kg	1400	440	10
Benzo(b)fluoranthene	24000		ug/kg	1100	300	10
Benzo(k)fluoranthene	8200		ug/kg	1100	290	10
Chrysene	18000		ug/kg	1100	190	10
Acenaphthylene	2000		ug/kg	1400	280	10
Anthracene	10000		ug/kg	1100	350	10
Benzo(ghi)perylene	11000		ug/kg	1400	210	10
Fluorene	3400		ug/kg	1800	170	10
Phenanthrene	35000		ug/kg	1100	220	10
Dibenzo(a,h)anthracene	2800		ug/kg	1100	210	10
Indeno(1,2,3-cd)pyrene	12000		ug/kg	1400	250	10
Pyrene	34000		ug/kg	1100	180	10
Biphenyl	ND		ug/kg	4100	420	10
4-Chloroaniline	ND		ug/kg	1800	320	10
2-Nitroaniline	ND		ug/kg	1800	340	10
3-Nitroaniline	ND		ug/kg	1800	340	10
4-Nitroaniline	ND		ug/kg	1800	740	10
Dibenzofuran	2600		ug/kg	1800	170	10
2-Methylnaphthalene	940	J	ug/kg	2100	220	10
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	1800	190	10
Acetophenone	ND		ug/kg	1800	220	10
2,4,6-Trichlorophenol	ND		ug/kg	1100	340	10
p-Chloro-m-cresol	ND		ug/kg	1800	270	10
2-Chlorophenol	ND		ug/kg	1800	210	10
2,4-Dichlorophenol	ND		ug/kg	1600	290	10
2,4-Dimethylphenol	ND		ug/kg	1800	590	10
2-Nitrophenol	ND		ug/kg	3900	670	10
4-Nitrophenol	ND		ug/kg	2500	730	10
2,4-Dinitrophenol	ND		ug/kg	8600	830	10
4,6-Dinitro-o-cresol	ND		ug/kg	4600	860	10
Pentachlorophenol	ND		ug/kg	1400	390	10
Phenol	ND		ug/kg	1800	270	10
2-Methylphenol	ND		ug/kg	1800	280	10
3-Methylphenol/4-Methylphenol	ND		ug/kg	2600	280	10

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-04 D
 Client ID: RB12_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 11:55
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	1800	340	10
Benzoic Acid	ND		ug/kg	5800	1800	10
Benzyl Alcohol	ND		ug/kg	1800	550	10
Carbazole	2300		ug/kg	1800	170	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		25-120
Phenol-d6	65		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	70		30-120
2,4,6-Tribromophenol	53		10-136
4-Terphenyl-d14	70		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-05 D
 Client ID: RB12_8-9
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/31/18 23:34
 Analyst: ALS
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	820	J	ug/kg	1400	180	10
1,2,4-Trichlorobenzene	ND		ug/kg	1800	200	10
Hexachlorobenzene	ND		ug/kg	1100	200	10
Bis(2-chloroethyl)ether	ND		ug/kg	1600	240	10
2-Chloronaphthalene	ND		ug/kg	1800	180	10
1,2-Dichlorobenzene	ND		ug/kg	1800	320	10
1,3-Dichlorobenzene	ND		ug/kg	1800	300	10
1,4-Dichlorobenzene	ND		ug/kg	1800	310	10
3,3'-Dichlorobenzidine	ND		ug/kg	1800	470	10
2,4-Dinitrotoluene	ND		ug/kg	1800	360	10
2,6-Dinitrotoluene	ND		ug/kg	1800	300	10
Fluoranthene	23000		ug/kg	1100	200	10
4-Chlorophenyl phenyl ether	ND		ug/kg	1800	190	10
4-Bromophenyl phenyl ether	ND		ug/kg	1800	270	10
Bis(2-chloroisopropyl)ether	ND		ug/kg	2100	300	10
Bis(2-chloroethoxy)methane	ND		ug/kg	1900	180	10
Hexachlorobutadiene	ND		ug/kg	1800	260	10
Hexachlorocyclopentadiene	ND		ug/kg	5100	1600	10
Hexachloroethane	ND		ug/kg	1400	290	10
Isophorone	ND		ug/kg	1600	230	10
Naphthalene	2700		ug/kg	1800	220	10
Nitrobenzene	ND		ug/kg	1600	260	10
NDPA/DPA	ND		ug/kg	1400	200	10
n-Nitrosodi-n-propylamine	ND		ug/kg	1800	270	10
Bis(2-ethylhexyl)phthalate	ND		ug/kg	1800	610	10
Butyl benzyl phthalate	ND		ug/kg	1800	450	10
Di-n-butylphthalate	ND		ug/kg	1800	340	10
Di-n-octylphthalate	ND		ug/kg	1800	600	10

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-05 D

Date Collected: 12/26/18 12:00

Client ID: RB12_8-9

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	1800	160	10
Dimethyl phthalate	ND		ug/kg	1800	370	10
Benzo(a)anthracene	12000		ug/kg	1100	200	10
Benzo(a)pyrene	12000		ug/kg	1400	430	10
Benzo(b)fluoranthene	13000		ug/kg	1100	300	10
Benzo(k)fluoranthene	4700		ug/kg	1100	280	10
Chrysene	11000		ug/kg	1100	180	10
Acenaphthylene	6600		ug/kg	1400	270	10
Anthracene	5100		ug/kg	1100	350	10
Benzo(ghi)perylene	12000		ug/kg	1400	210	10
Fluorene	1500	J	ug/kg	1800	170	10
Phenanthrene	15000		ug/kg	1100	220	10
Dibenzo(a,h)anthracene	2000		ug/kg	1100	200	10
Indeno(1,2,3-cd)pyrene	10000		ug/kg	1400	250	10
Pyrene	22000		ug/kg	1100	180	10
Biphenyl	ND		ug/kg	4000	410	10
4-Chloroaniline	ND		ug/kg	1800	320	10
2-Nitroaniline	ND		ug/kg	1800	340	10
3-Nitroaniline	ND		ug/kg	1800	340	10
4-Nitroaniline	ND		ug/kg	1800	740	10
Dibenzofuran	770	J	ug/kg	1800	170	10
2-Methylnaphthalene	820	J	ug/kg	2100	210	10
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	1800	180	10
Acetophenone	ND		ug/kg	1800	220	10
2,4,6-Trichlorophenol	ND		ug/kg	1100	340	10
p-Chloro-m-cresol	ND		ug/kg	1800	260	10
2-Chlorophenol	ND		ug/kg	1800	210	10
2,4-Dichlorophenol	ND		ug/kg	1600	280	10
2,4-Dimethylphenol	ND		ug/kg	1800	590	10
2-Nitrophenol	ND		ug/kg	3800	670	10
4-Nitrophenol	ND		ug/kg	2500	720	10
2,4-Dinitrophenol	ND		ug/kg	8500	830	10
4,6-Dinitro-o-cresol	ND		ug/kg	4600	850	10
Pentachlorophenol	ND		ug/kg	1400	390	10
Phenol	ND		ug/kg	1800	270	10
2-Methylphenol	ND		ug/kg	1800	280	10
3-Methylphenol/4-Methylphenol	ND		ug/kg	2600	280	10

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-05 D
 Client ID: RB12_8-9
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	1800	340	10
Benzoic Acid	ND		ug/kg	5800	1800	10
Benzyl Alcohol	ND		ug/kg	1800	540	10
Carbazole	520	J	ug/kg	1800	170	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	79		25-120
Phenol-d6	82		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	78		30-120
2,4,6-Tribromophenol	78		10-136
4-Terphenyl-d14	80		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-06
Client ID: RB12_9-10
Sample Location: BRONX, NY

Date Collected: 12/26/18 12:05
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8270D
Analytical Date: 12/31/18 18:19
Analyst: ALS
Percent Solids: 88%

Extraction Method: EPA 3546
Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	160		ug/kg	150	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	33.	1
1,3-Dichlorobenzene	ND		ug/kg	180	32.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	49.	1
2,4-Dinitrotoluene	ND		ug/kg	180	37.	1
2,6-Dinitrotoluene	ND		ug/kg	180	32.	1
Fluoranthene	3100		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	530	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	530		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	170	27.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	64.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	35.	1
Di-n-octylphthalate	ND		ug/kg	180	63.	1

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-06

Date Collected: 12/26/18 12:05

Client ID: RB12_9-10

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	39.	1
Benzo(a)anthracene	2000		ug/kg	110	21.	1
Benzo(a)pyrene	2600		ug/kg	150	45.	1
Benzo(b)fluoranthene	3100		ug/kg	110	31.	1
Benzo(k)fluoranthene	1000		ug/kg	110	30.	1
Chrysene	1800		ug/kg	110	19.	1
Acenaphthylene	72	J	ug/kg	150	28.	1
Anthracene	350		ug/kg	110	36.	1
Benzo(ghi)perylene	2000		ug/kg	150	22.	1
Fluorene	130	J	ug/kg	180	18.	1
Phenanthrene	1200		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	380		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	2000		ug/kg	150	26.	1
Pyrene	3200		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	43.	1
4-Chloroaniline	ND		ug/kg	180	34.	1
2-Nitroaniline	ND		ug/kg	180	36.	1
3-Nitroaniline	ND		ug/kg	180	35.	1
4-Nitroaniline	ND		ug/kg	180	76.	1
Dibenzofuran	88	J	ug/kg	180	17.	1
2-Methylnaphthalene	74	J	ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	180	61.	1
2-Nitrophenol	ND		ug/kg	400	69.	1
4-Nitrophenol	ND		ug/kg	260	75.	1
2,4-Dinitrophenol	ND		ug/kg	880	86.	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	88.	1
Pentachlorophenol	ND		ug/kg	150	40.	1
Phenol	ND		ug/kg	180	28.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	29.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-06
Client ID: RB12_9-10
Sample Location: BRONX, NY

Date Collected: 12/26/18 12:05
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	600	190	1
Benzyl Alcohol	ND		ug/kg	180	56.	1
Carbazole	82	J	ug/kg	180	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	86		25-120
Phenol-d6	83		10-120
Nitrobenzene-d5	85		23-120
2-Fluorobiphenyl	83		30-120
2,4,6-Tribromophenol	92		10-136
4-Terphenyl-d14	73		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-07 D
 Client ID: RB12_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:10
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/31/18 20:30
 Analyst: ALS
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	1100		ug/kg	290	38.	2
1,2,4-Trichlorobenzene	ND		ug/kg	370	42.	2
Hexachlorobenzene	ND		ug/kg	220	41.	2
Bis(2-chloroethyl)ether	ND		ug/kg	330	50.	2
2-Chloronaphthalene	ND		ug/kg	370	36.	2
1,2-Dichlorobenzene	ND		ug/kg	370	66.	2
1,3-Dichlorobenzene	ND		ug/kg	370	63.	2
1,4-Dichlorobenzene	ND		ug/kg	370	64.	2
3,3'-Dichlorobenzidine	ND		ug/kg	370	97.	2
2,4-Dinitrotoluene	ND		ug/kg	370	73.	2
2,6-Dinitrotoluene	ND		ug/kg	370	63.	2
Fluoranthene	7600		ug/kg	220	42.	2
4-Chlorophenyl phenyl ether	ND		ug/kg	370	39.	2
4-Bromophenyl phenyl ether	ND		ug/kg	370	56.	2
Bis(2-chloroisopropyl)ether	ND		ug/kg	440	62.	2
Bis(2-chloroethoxy)methane	ND		ug/kg	400	37.	2
Hexachlorobutadiene	ND		ug/kg	370	54.	2
Hexachlorocyclopentadiene	ND		ug/kg	1000	330	2
Hexachloroethane	ND		ug/kg	290	59.	2
Isophorone	ND		ug/kg	330	48.	2
Naphthalene	2600		ug/kg	370	44.	2
Nitrobenzene	ND		ug/kg	330	54.	2
NDPA/DPA	ND		ug/kg	290	42.	2
n-Nitrosodi-n-propylamine	ND		ug/kg	370	56.	2
Bis(2-ethylhexyl)phthalate	ND		ug/kg	370	130	2
Butyl benzyl phthalate	ND		ug/kg	370	92.	2
Di-n-butylphthalate	ND		ug/kg	370	69.	2
Di-n-octylphthalate	ND		ug/kg	370	120	2

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-07 D

Date Collected: 12/26/18 12:10

Client ID: RB12_10-12

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	370	34.	2
Dimethyl phthalate	ND		ug/kg	370	77.	2
Benzo(a)anthracene	3500		ug/kg	220	41.	2
Benzo(a)pyrene	3600		ug/kg	290	89.	2
Benzo(b)fluoranthene	4000		ug/kg	220	62.	2
Benzo(k)fluoranthene	1400		ug/kg	220	58.	2
Chrysene	3900		ug/kg	220	38.	2
Acenaphthylene	1000		ug/kg	290	56.	2
Anthracene	2200		ug/kg	220	71.	2
Benzo(ghi)perylene	2000		ug/kg	290	43.	2
Fluorene	1500		ug/kg	370	36.	2
Phenanthrene	8700		ug/kg	220	44.	2
Dibenzo(a,h)anthracene	570		ug/kg	220	42.	2
Indeno(1,2,3-cd)pyrene	2100		ug/kg	290	51.	2
Pyrene	7500		ug/kg	220	36.	2
Biphenyl	240	J	ug/kg	830	85.	2
4-Chloroaniline	ND		ug/kg	370	67.	2
2-Nitroaniline	ND		ug/kg	370	70.	2
3-Nitroaniline	ND		ug/kg	370	69.	2
4-Nitroaniline	ND		ug/kg	370	150	2
Dibenzofuran	1000		ug/kg	370	35.	2
2-Methylnaphthalene	650		ug/kg	440	44.	2
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	370	38.	2
Acetophenone	140	J	ug/kg	370	45.	2
2,4,6-Trichlorophenol	ND		ug/kg	220	69.	2
p-Chloro-m-cresol	ND		ug/kg	370	54.	2
2-Chlorophenol	ND		ug/kg	370	43.	2
2,4-Dichlorophenol	ND		ug/kg	330	59.	2
2,4-Dimethylphenol	ND		ug/kg	370	120	2
2-Nitrophenol	ND		ug/kg	790	140	2
4-Nitrophenol	ND		ug/kg	510	150	2
2,4-Dinitrophenol	ND		ug/kg	1800	170	2
4,6-Dinitro-o-cresol	ND		ug/kg	950	180	2
Pentachlorophenol	ND		ug/kg	290	80.	2
Phenol	72	J	ug/kg	370	55.	2
2-Methylphenol	ND		ug/kg	370	57.	2
3-Methylphenol/4-Methylphenol	89	J	ug/kg	530	57.	2

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-07 D
 Client ID: RB12_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:10
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	370	70.	2
Benzoic Acid	ND		ug/kg	1200	370	2
Benzyl Alcohol	ND		ug/kg	370	110	2
Carbazole	930		ug/kg	370	36.	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	80		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	80		30-120
2,4,6-Tribromophenol	82		10-136
4-Terphenyl-d14	71		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-08 D
 Client ID: RB02_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:25
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/31/18 20:56
 Analyst: ALS
 Percent Solids: 94%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	280	36.	2
1,2,4-Trichlorobenzene	ND		ug/kg	350	40.	2
Hexachlorobenzene	ND		ug/kg	210	39.	2
Bis(2-chloroethyl)ether	ND		ug/kg	320	48.	2
2-Chloronaphthalene	ND		ug/kg	350	35.	2
1,2-Dichlorobenzene	ND		ug/kg	350	63.	2
1,3-Dichlorobenzene	ND		ug/kg	350	60.	2
1,4-Dichlorobenzene	ND		ug/kg	350	61.	2
3,3'-Dichlorobenzidine	ND		ug/kg	350	93.	2
2,4-Dinitrotoluene	ND		ug/kg	350	70.	2
2,6-Dinitrotoluene	ND		ug/kg	350	60.	2
Fluoranthene	640		ug/kg	210	40.	2
4-Chlorophenyl phenyl ether	ND		ug/kg	350	37.	2
4-Bromophenyl phenyl ether	ND		ug/kg	350	53.	2
Bis(2-chloroisopropyl)ether	ND		ug/kg	420	60.	2
Bis(2-chloroethoxy)methane	ND		ug/kg	380	35.	2
Hexachlorobutadiene	ND		ug/kg	350	51.	2
Hexachlorocyclopentadiene	ND		ug/kg	1000	320	2
Hexachloroethane	ND		ug/kg	280	57.	2
Isophorone	ND		ug/kg	320	45.	2
Naphthalene	47	J	ug/kg	350	43.	2
Nitrobenzene	ND		ug/kg	320	52.	2
NDPA/DPA	ND		ug/kg	280	40.	2
n-Nitrosodi-n-propylamine	ND		ug/kg	350	54.	2
Bis(2-ethylhexyl)phthalate	ND		ug/kg	350	120	2
Butyl benzyl phthalate	ND		ug/kg	350	88.	2
Di-n-butylphthalate	ND		ug/kg	350	66.	2
Di-n-octylphthalate	ND		ug/kg	350	120	2

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-08 D

Date Collected: 12/26/18 13:25

Client ID: RB02_0-2

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	350	32.	2
Dimethyl phthalate	ND		ug/kg	350	74.	2
Benzo(a)anthracene	460		ug/kg	210	39.	2
Benzo(a)pyrene	470		ug/kg	280	86.	2
Benzo(b)fluoranthene	610		ug/kg	210	59.	2
Benzo(k)fluoranthene	180	J	ug/kg	210	56.	2
Chrysene	520		ug/kg	210	36.	2
Acenaphthylene	100	J	ug/kg	280	54.	2
Anthracene	96	J	ug/kg	210	68.	2
Benzo(ghi)perylene	340		ug/kg	280	41.	2
Fluorene	37	J	ug/kg	350	34.	2
Phenanthrene	510		ug/kg	210	43.	2
Dibenzo(a,h)anthracene	87	J	ug/kg	210	40.	2
Indeno(1,2,3-cd)pyrene	320		ug/kg	280	49.	2
Pyrene	700		ug/kg	210	35.	2
Biphenyl	ND		ug/kg	800	81.	2
4-Chloroaniline	ND		ug/kg	350	64.	2
2-Nitroaniline	ND		ug/kg	350	68.	2
3-Nitroaniline	ND		ug/kg	350	66.	2
4-Nitroaniline	ND		ug/kg	350	140	2
Dibenzofuran	ND		ug/kg	350	33.	2
2-Methylnaphthalene	ND		ug/kg	420	42.	2
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	350	36.	2
Acetophenone	ND		ug/kg	350	43.	2
2,4,6-Trichlorophenol	ND		ug/kg	210	66.	2
p-Chloro-m-cresol	ND		ug/kg	350	52.	2
2-Chlorophenol	ND		ug/kg	350	41.	2
2,4-Dichlorophenol	ND		ug/kg	320	56.	2
2,4-Dimethylphenol	ND		ug/kg	350	120	2
2-Nitrophenol	ND		ug/kg	760	130	2
4-Nitrophenol	ND		ug/kg	490	140	2
2,4-Dinitrophenol	ND		ug/kg	1700	160	2
4,6-Dinitro-o-cresol	ND		ug/kg	910	170	2
Pentachlorophenol	ND		ug/kg	280	77.	2
Phenol	ND		ug/kg	350	53.	2
2-Methylphenol	ND		ug/kg	350	54.	2
3-Methylphenol/4-Methylphenol	ND		ug/kg	500	55.	2

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-08 D
 Client ID: RB02_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:25
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	350	67.	2
Benzoic Acid	ND		ug/kg	1100	350	2
Benzyl Alcohol	ND		ug/kg	350	110	2
Carbazole	ND		ug/kg	350	34.	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	60		25-120
Phenol-d6	61		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	69		30-120
2,4,6-Tribromophenol	62		10-136
4-Terphenyl-d14	59		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-09 D
 Client ID: RB02_7-9
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:30
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/31/18 21:23
 Analyst: ALS
 Percent Solids: 70%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	120	J	ug/kg	370	48.	2
1,2,4-Trichlorobenzene	ND		ug/kg	470	53.	2
Hexachlorobenzene	ND		ug/kg	280	52.	2
Bis(2-chloroethyl)ether	ND		ug/kg	420	63.	2
2-Chloronaphthalene	ND		ug/kg	470	46.	2
1,2-Dichlorobenzene	ND		ug/kg	470	84.	2
1,3-Dichlorobenzene	ND		ug/kg	470	80.	2
1,4-Dichlorobenzene	ND		ug/kg	470	82.	2
3,3'-Dichlorobenzidine	ND		ug/kg	470	120	2
2,4-Dinitrotoluene	ND		ug/kg	470	94.	2
2,6-Dinitrotoluene	ND		ug/kg	470	80.	2
Fluoranthene	1100		ug/kg	280	54.	2
4-Chlorophenyl phenyl ether	ND		ug/kg	470	50.	2
4-Bromophenyl phenyl ether	ND		ug/kg	470	71.	2
Bis(2-chloroisopropyl)ether	ND		ug/kg	560	80.	2
Bis(2-chloroethoxy)methane	ND		ug/kg	500	47.	2
Hexachlorobutadiene	ND		ug/kg	470	68.	2
Hexachlorocyclopentadiene	ND		ug/kg	1300	420	2
Hexachloroethane	ND		ug/kg	370	76.	2
Isophorone	ND		ug/kg	420	61.	2
Naphthalene	1500		ug/kg	470	57.	2
Nitrobenzene	ND		ug/kg	420	69.	2
NDPA/DPA	ND		ug/kg	370	53.	2
n-Nitrosodi-n-propylamine	ND		ug/kg	470	72.	2
Bis(2-ethylhexyl)phthalate	ND		ug/kg	470	160	2
Butyl benzyl phthalate	ND		ug/kg	470	120	2
Di-n-butylphthalate	ND		ug/kg	470	89.	2
Di-n-octylphthalate	ND		ug/kg	470	160	2

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-09 D

Date Collected: 12/26/18 13:30

Client ID: RB02_7-9

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	470	43.	2
Dimethyl phthalate	ND		ug/kg	470	98.	2
Benzo(a)anthracene	820		ug/kg	280	53.	2
Benzo(a)pyrene	3100		ug/kg	370	110	2
Benzo(b)fluoranthene	2700		ug/kg	280	79.	2
Benzo(k)fluoranthene	520		ug/kg	280	75.	2
Chrysene	1000		ug/kg	280	49.	2
Acenaphthylene	2800		ug/kg	370	72.	2
Anthracene	570		ug/kg	280	91.	2
Benzo(ghi)perylene	5400		ug/kg	370	55.	2
Fluorene	360	J	ug/kg	470	45.	2
Phenanthrene	1100		ug/kg	280	57.	2
Dibenzo(a,h)anthracene	540		ug/kg	280	54.	2
Indeno(1,2,3-cd)pyrene	2600		ug/kg	370	65.	2
Pyrene	1800		ug/kg	280	46.	2
Biphenyl	210	J	ug/kg	1100	110	2
4-Chloroaniline	ND		ug/kg	470	85.	2
2-Nitroaniline	ND		ug/kg	470	90.	2
3-Nitroaniline	ND		ug/kg	470	88.	2
4-Nitroaniline	ND		ug/kg	470	190	2
Dibenzofuran	ND		ug/kg	470	44.	2
2-Methylnaphthalene	450	J	ug/kg	560	56.	2
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	470	49.	2
Acetophenone	180	J	ug/kg	470	58.	2
2,4,6-Trichlorophenol	ND		ug/kg	280	89.	2
p-Chloro-m-cresol	ND		ug/kg	470	70.	2
2-Chlorophenol	ND		ug/kg	470	55.	2
2,4-Dichlorophenol	ND		ug/kg	420	75.	2
2,4-Dimethylphenol	ND		ug/kg	470	150	2
2-Nitrophenol	ND		ug/kg	1000	180	2
4-Nitrophenol	ND		ug/kg	650	190	2
2,4-Dinitrophenol	ND		ug/kg	2200	220	2
4,6-Dinitro-o-cresol	ND		ug/kg	1200	220	2
Pentachlorophenol	ND		ug/kg	370	100	2
Phenol	ND		ug/kg	470	70.	2
2-Methylphenol	ND		ug/kg	470	72.	2
3-Methylphenol/4-Methylphenol	ND		ug/kg	670	73.	2

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-09 D
 Client ID: RB02_7-9
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:30
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	470	90.	2
Benzoic Acid	ND		ug/kg	1500	470	2
Benzyl Alcohol	ND		ug/kg	470	140	2
Carbazole	ND		ug/kg	470	45.	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	78		25-120
Phenol-d6	78		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	79		30-120
2,4,6-Tribromophenol	88		10-136
4-Terphenyl-d14	64		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-10 D
 Client ID: RB02_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:35
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/01/19 00:00
 Analyst: ALS
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	250	J	ug/kg	1400	180	10
1,2,4-Trichlorobenzene	ND		ug/kg	1800	200	10
Hexachlorobenzene	ND		ug/kg	1100	200	10
Bis(2-chloroethyl)ether	ND		ug/kg	1600	240	10
2-Chloronaphthalene	ND		ug/kg	1800	180	10
1,2-Dichlorobenzene	ND		ug/kg	1800	320	10
1,3-Dichlorobenzene	ND		ug/kg	1800	310	10
1,4-Dichlorobenzene	ND		ug/kg	1800	310	10
3,3'-Dichlorobenzidine	ND		ug/kg	1800	480	10
2,4-Dinitrotoluene	ND		ug/kg	1800	360	10
2,6-Dinitrotoluene	ND		ug/kg	1800	310	10
Fluoranthene	4400		ug/kg	1100	200	10
4-Chlorophenyl phenyl ether	ND		ug/kg	1800	190	10
4-Bromophenyl phenyl ether	ND		ug/kg	1800	270	10
Bis(2-chloroisopropyl)ether	ND		ug/kg	2100	300	10
Bis(2-chloroethoxy)methane	ND		ug/kg	1900	180	10
Hexachlorobutadiene	ND		ug/kg	1800	260	10
Hexachlorocyclopentadiene	ND		ug/kg	5100	1600	10
Hexachloroethane	ND		ug/kg	1400	290	10
Isophorone	ND		ug/kg	1600	230	10
Naphthalene	360	J	ug/kg	1800	220	10
Nitrobenzene	ND		ug/kg	1600	260	10
NDPA/DPA	ND		ug/kg	1400	200	10
n-Nitrosodi-n-propylamine	ND		ug/kg	1800	280	10
Bis(2-ethylhexyl)phthalate	ND		ug/kg	1800	620	10
Butyl benzyl phthalate	ND		ug/kg	1800	450	10
Di-n-butylphthalate	ND		ug/kg	1800	340	10
Di-n-octylphthalate	ND		ug/kg	1800	610	10

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-10 D

Date Collected: 12/26/18 13:35

Client ID: RB02_10-12

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	1800	160	10
Dimethyl phthalate	ND		ug/kg	1800	380	10
Benzo(a)anthracene	2400		ug/kg	1100	200	10
Benzo(a)pyrene	2500		ug/kg	1400	440	10
Benzo(b)fluoranthene	2800		ug/kg	1100	300	10
Benzo(k)fluoranthene	1000	J	ug/kg	1100	290	10
Chrysene	2100		ug/kg	1100	190	10
Acenaphthylene	290	J	ug/kg	1400	280	10
Anthracene	940	J	ug/kg	1100	350	10
Benzo(ghi)perylene	1500		ug/kg	1400	210	10
Fluorene	270	J	ug/kg	1800	170	10
Phenanthrene	3200		ug/kg	1100	220	10
Dibenzo(a,h)anthracene	340	J	ug/kg	1100	210	10
Indeno(1,2,3-cd)pyrene	1600		ug/kg	1400	250	10
Pyrene	4100		ug/kg	1100	180	10
Biphenyl	ND		ug/kg	4100	420	10
4-Chloroaniline	ND		ug/kg	1800	320	10
2-Nitroaniline	ND		ug/kg	1800	340	10
3-Nitroaniline	ND		ug/kg	1800	340	10
4-Nitroaniline	ND		ug/kg	1800	740	10
Dibenzofuran	220	J	ug/kg	1800	170	10
2-Methylnaphthalene	ND		ug/kg	2100	220	10
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	1800	190	10
Acetophenone	ND		ug/kg	1800	220	10
2,4,6-Trichlorophenol	ND		ug/kg	1100	340	10
p-Chloro-m-cresol	ND		ug/kg	1800	270	10
2-Chlorophenol	ND		ug/kg	1800	210	10
2,4-Dichlorophenol	ND		ug/kg	1600	290	10
2,4-Dimethylphenol	ND		ug/kg	1800	590	10
2-Nitrophenol	ND		ug/kg	3900	670	10
4-Nitrophenol	ND		ug/kg	2500	730	10
2,4-Dinitrophenol	ND		ug/kg	8600	830	10
4,6-Dinitro-o-cresol	ND		ug/kg	4600	860	10
Pentachlorophenol	ND		ug/kg	1400	390	10
Phenol	ND		ug/kg	1800	270	10
2-Methylphenol	ND		ug/kg	1800	280	10
3-Methylphenol/4-Methylphenol	ND		ug/kg	2600	280	10

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-10 D
 Client ID: RB02_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:35
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	1800	340	10
Benzoic Acid	ND		ug/kg	5800	1800	10
Benzyl Alcohol	ND		ug/kg	1800	550	10
Carbazole	260	J	ug/kg	1800	170	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	44		25-120
Phenol-d6	51		10-120
Nitrobenzene-d5	53		23-120
2-Fluorobiphenyl	58		30-120
2,4,6-Tribromophenol	42		10-136
4-Terphenyl-d14	50		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-11
 Client ID: RB02_13-15
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:40
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 12/31/18 18:45
 Analyst: ALS
 Percent Solids: 82%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	700		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	3100		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	1100		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-11

Date Collected: 12/26/18 13:40

Client ID: RB02_13-15

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	1900		ug/kg	120	22.	1
Benzo(a)pyrene	1900		ug/kg	160	49.	1
Benzo(b)fluoranthene	2300		ug/kg	120	34.	1
Benzo(k)fluoranthene	630		ug/kg	120	32.	1
Chrysene	1600		ug/kg	120	21.	1
Acenaphthylene	130	J	ug/kg	160	31.	1
Anthracene	730		ug/kg	120	39.	1
Benzo(ghi)perylene	1200		ug/kg	160	23.	1
Fluorene	340		ug/kg	200	19.	1
Phenanthrene	1800		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	250		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	1300		ug/kg	160	28.	1
Pyrene	3600		ug/kg	120	20.	1
Biphenyl	78	J	ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	200		ug/kg	200	19.	1
2-Methylnaphthalene	75	J	ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	66.	1
2-Nitrophenol	ND		ug/kg	430	75.	1
4-Nitrophenol	ND		ug/kg	280	81.	1
2,4-Dinitrophenol	ND		ug/kg	960	93.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	96.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	34	J	ug/kg	290	31.	1

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-11
 Client ID: RB02_13-15
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:40
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	200		ug/kg	200	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		25-120
Phenol-d6	68		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	68		30-120
2,4,6-Tribromophenol	82		10-136
4-Terphenyl-d14	61		18-120

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/30/18 22:04
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-11 Batch: WG1193171-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	42.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 12/30/18 22:04
 Analyst: IM

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-11 Batch: WG1193171-1					
Dimethyl phthalate	ND		ug/kg	160	35.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/30/18 22:04
Analyst: IM

Extraction Method: EPA 3546
Extraction Date: 12/27/18 14:19

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-11 Batch: WG1193171-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Benzoic Acid	ND		ug/kg	530	170
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	84		30-120
2,4,6-Tribromophenol	88		10-136
4-Terphenyl-d14	90		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-11 Batch: WG1193171-2 WG1193171-3								
Acenaphthene	57		72		31-137	23		50
1,2,4-Trichlorobenzene	59		81		38-107	31		50
Hexachlorobenzene	72		90		40-140	22		50
Bis(2-chloroethyl)ether	53		72		40-140	30		50
2-Chloronaphthalene	67		86		40-140	25		50
1,2-Dichlorobenzene	55		70		40-140	24		50
1,3-Dichlorobenzene	53		68		40-140	25		50
1,4-Dichlorobenzene	54		69		28-104	24		50
3,3'-Dichlorobenzidine	58		61		40-140	5		50
2,4-Dinitrotoluene	64		81		40-132	23		50
2,6-Dinitrotoluene	74		95		40-140	25		50
Fluoranthene	74		92		40-140	22		50
4-Chlorophenyl phenyl ether	63		78		40-140	21		50
4-Bromophenyl phenyl ether	67		86		40-140	25		50
Bis(2-chloroisopropyl)ether	54		72		40-140	29		50
Bis(2-chloroethoxy)methane	60		79		40-117	27		50
Hexachlorobutadiene	61		81		40-140	28		50
Hexachlorocyclopentadiene	55		78		40-140	35		50
Hexachloroethane	51		66		40-140	26		50
Isophorone	62		81		40-140	27		50
Naphthalene	58		77		40-140	28		50
Nitrobenzene	56		74		40-140	28		50
NDPA/DPA	65		82		36-157	23		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-11 Batch: WG1193171-2 WG1193171-3								
n-Nitrosodi-n-propylamine	60		79		32-121	27		50
Bis(2-ethylhexyl)phthalate	64		81		40-140	23		50
Butyl benzyl phthalate	71		88		40-140	21		50
Di-n-butylphthalate	71		89		40-140	23		50
Di-n-octylphthalate	65		82		40-140	23		50
Diethyl phthalate	62		77		40-140	22		50
Dimethyl phthalate	75		96		40-140	25		50
Benzo(a)anthracene	66		82		40-140	22		50
Benzo(a)pyrene	74		89		40-140	18		50
Benzo(b)fluoranthene	71		87		40-140	20		50
Benzo(k)fluoranthene	75		92		40-140	20		50
Chrysene	68		84		40-140	21		50
Acenaphthylene	72		91		40-140	23		50
Anthracene	71		87		40-140	20		50
Benzo(ghi)perylene	72		88		40-140	20		50
Fluorene	64		80		40-140	22		50
Phenanthrene	68		82		40-140	19		50
Dibenzo(a,h)anthracene	73		88		40-140	19		50
Indeno(1,2,3-cd)pyrene	71		88		40-140	21		50
Pyrene	75		91		35-142	19		50
Biphenyl	69		88		54-104	24		50
4-Chloroaniline	52		58		40-140	11		50
2-Nitroaniline	73		93		47-134	24		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-11 Batch: WG1193171-2 WG1193171-3								
3-Nitroaniline	51		59		26-129	15		50
4-Nitroaniline	58		74		41-125	24		50
Dibenzofuran	61		75		40-140	21		50
2-Methylnaphthalene	63		82		40-140	26		50
1,2,4,5-Tetrachlorobenzene	68		90		40-117	28		50
Acetophenone	59		78		14-144	28		50
2,4,6-Trichlorophenol	77		95		30-130	21		50
p-Chloro-m-cresol	75		95		26-103	24		50
2-Chlorophenol	59		79		25-102	29		50
2,4-Dichlorophenol	70		90		30-130	25		50
2,4-Dimethylphenol	68		90		30-130	28		50
2-Nitrophenol	61		79		30-130	26		50
4-Nitrophenol	59		78		11-114	28		50
2,4-Dinitrophenol	56		76		4-130	30		50
4,6-Dinitro-o-cresol	64		83		10-130	26		50
Pentachlorophenol	67		90		17-109	29		50
Phenol	61		80		26-90	27		50
2-Methylphenol	62		82		30-130.	28		50
3-Methylphenol/4-Methylphenol	64		83		30-130	26		50
2,4,5-Trichlorophenol	77		101		30-130	27		50
Benzoic Acid	32		50		10-110	44		50
Benzyl Alcohol	63		87		40-140	32		50
Carbazole	70		85		54-128	19		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-11 Batch: WG1193171-2 WG1193171-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	55		73		25-120
Phenol-d6	60		80		10-120
Nitrobenzene-d5	56		74		23-120
2-Fluorobiphenyl	69		88		30-120
2,4,6-Tribromophenol	73		93		10-136
4-Terphenyl-d14	74		92		18-120

PCBS

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-01
 Client ID: RB03_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:45
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/30/18 22:30
 Analyst: WR
 Percent Solids: 94%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 06:08
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/27/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.0	3.11	1	A
Aroclor 1221	ND		ug/kg	35.0	3.51	1	A
Aroclor 1232	ND		ug/kg	35.0	7.42	1	A
Aroclor 1242	ND		ug/kg	35.0	4.72	1	A
Aroclor 1248	ND		ug/kg	35.0	5.25	1	A
Aroclor 1254	ND		ug/kg	35.0	3.83	1	A
Aroclor 1260	ND		ug/kg	35.0	6.47	1	A
Aroclor 1262	ND		ug/kg	35.0	4.44	1	A
Aroclor 1268	ND		ug/kg	35.0	3.62	1	A
PCBs, Total	ND		ug/kg	35.0	3.11	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	74		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-02
 Client ID: RB03_2-3
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:50
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 12/30/18 22:43
 Analyst: WR
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 06:08
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/27/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.2	3.22	1	A
Aroclor 1221	ND		ug/kg	36.2	3.63	1	A
Aroclor 1232	ND		ug/kg	36.2	7.68	1	A
Aroclor 1242	ND		ug/kg	36.2	4.88	1	A
Aroclor 1248	ND		ug/kg	36.2	5.43	1	A
Aroclor 1254	ND		ug/kg	36.2	3.96	1	A
Aroclor 1260	ND		ug/kg	36.2	6.69	1	A
Aroclor 1262	ND		ug/kg	36.2	4.60	1	A
Aroclor 1268	ND		ug/kg	36.2	3.75	1	A
PCBs, Total	ND		ug/kg	36.2	3.22	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	56		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	65		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-03
 Client ID: RB03_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:55
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/03/19 12:36
 Analyst: WR
 Percent Solids: 82%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 06:08
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/27/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	40.1	3.56	1	A
Aroclor 1221	ND		ug/kg	40.1	4.02	1	A
Aroclor 1232	ND		ug/kg	40.1	8.51	1	A
Aroclor 1242	ND		ug/kg	40.1	5.41	1	A
Aroclor 1248	ND		ug/kg	40.1	6.02	1	A
Aroclor 1254	ND		ug/kg	40.1	4.39	1	A
Aroclor 1260	ND		ug/kg	40.1	7.42	1	A
Aroclor 1262	ND		ug/kg	40.1	5.10	1	A
Aroclor 1268	ND		ug/kg	40.1	4.16	1	A
PCBs, Total	ND		ug/kg	40.1	3.56	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	A
Decachlorobiphenyl	88		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	88		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-04
 Client ID: RB12_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 11:55
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 14:03
 Analyst: WR
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 06:08
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/27/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.0	3.11	1	A
Aroclor 1221	ND		ug/kg	35.0	3.51	1	A
Aroclor 1232	ND		ug/kg	35.0	7.43	1	A
Aroclor 1242	ND		ug/kg	35.0	4.72	1	A
Aroclor 1248	ND		ug/kg	35.0	5.26	1	A
Aroclor 1254	ND		ug/kg	35.0	3.84	1	A
Aroclor 1260	ND		ug/kg	35.0	6.48	1	A
Aroclor 1262	ND		ug/kg	35.0	4.45	1	A
Aroclor 1268	ND		ug/kg	35.0	3.63	1	A
PCBs, Total	ND		ug/kg	35.0	3.11	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	109		30-150	A
Decachlorobiphenyl	99		30-150	A
2,4,5,6-Tetrachloro-m-xylene	94		30-150	B
Decachlorobiphenyl	117		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-05
 Client ID: RB12_8-9
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 14:16
 Analyst: WR
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 06:08
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/27/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.4	3.14	1	A
Aroclor 1221	ND		ug/kg	35.4	3.55	1	A
Aroclor 1232	ND		ug/kg	35.4	7.51	1	A
Aroclor 1242	ND		ug/kg	35.4	4.77	1	A
Aroclor 1248	ND		ug/kg	35.4	5.31	1	A
Aroclor 1254	ND		ug/kg	35.4	3.87	1	A
Aroclor 1260	22.4	JP	ug/kg	35.4	6.54	1	B
Aroclor 1262	ND		ug/kg	35.4	4.50	1	A
Aroclor 1268	ND		ug/kg	35.4	3.67	1	A
PCBs, Total	22.4	J	ug/kg	35.4	3.14	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	95		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-06
 Client ID: RB12_9-10
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:05
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 14:28
 Analyst: HT
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 06:08
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/27/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.7	3.17	1	A
Aroclor 1221	ND		ug/kg	35.7	3.58	1	A
Aroclor 1232	ND		ug/kg	35.7	7.57	1	A
Aroclor 1242	ND		ug/kg	35.7	4.81	1	A
Aroclor 1248	ND		ug/kg	35.7	5.35	1	A
Aroclor 1254	ND		ug/kg	35.7	3.90	1	A
Aroclor 1260	ND		ug/kg	35.7	6.60	1	A
Aroclor 1262	ND		ug/kg	35.7	4.53	1	A
Aroclor 1268	ND		ug/kg	35.7	3.70	1	A
PCBs, Total	ND		ug/kg	35.7	3.17	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		30-150	A
Decachlorobiphenyl	71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	94		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-07
 Client ID: RB12_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:10
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 14:41
 Analyst: HT
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 06:08
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/27/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.2	3.21	1	A
Aroclor 1221	ND		ug/kg	36.2	3.62	1	A
Aroclor 1232	ND		ug/kg	36.2	7.67	1	A
Aroclor 1242	ND		ug/kg	36.2	4.88	1	A
Aroclor 1248	ND		ug/kg	36.2	5.42	1	A
Aroclor 1254	ND		ug/kg	36.2	3.96	1	A
Aroclor 1260	ND		ug/kg	36.2	6.68	1	A
Aroclor 1262	ND		ug/kg	36.2	4.59	1	A
Aroclor 1268	ND		ug/kg	36.2	3.75	1	A
PCBs, Total	ND		ug/kg	36.2	3.21	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		30-150	A
Decachlorobiphenyl	79		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	95		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-08
 Client ID: RB02_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:25
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 14:54
 Analyst: HT
 Percent Solids: 94%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 06:08
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/27/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.6	3.07	1	A
Aroclor 1221	ND		ug/kg	34.6	3.47	1	A
Aroclor 1232	ND		ug/kg	34.6	7.34	1	A
Aroclor 1242	ND		ug/kg	34.6	4.66	1	A
Aroclor 1248	ND		ug/kg	34.6	5.19	1	A
Aroclor 1254	ND		ug/kg	34.6	3.79	1	A
Aroclor 1260	ND		ug/kg	34.6	6.40	1	A
Aroclor 1262	ND		ug/kg	34.6	4.40	1	A
Aroclor 1268	ND		ug/kg	34.6	3.58	1	A
PCBs, Total	ND		ug/kg	34.6	3.07	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	108		30-150	A
Decachlorobiphenyl	84		30-150	A
2,4,5,6-Tetrachloro-m-xylene	94		30-150	B
Decachlorobiphenyl	103		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-09
 Client ID: RB02_7-9
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:30
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 15:07
 Analyst: HT
 Percent Solids: 70%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 06:08
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/27/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	46.8	4.16	1	A
Aroclor 1221	ND		ug/kg	46.8	4.69	1	A
Aroclor 1232	ND		ug/kg	46.8	9.93	1	A
Aroclor 1242	ND		ug/kg	46.8	6.31	1	A
Aroclor 1248	ND		ug/kg	46.8	7.02	1	A
Aroclor 1254	ND		ug/kg	46.8	5.12	1	A
Aroclor 1260	ND		ug/kg	46.8	8.65	1	A
Aroclor 1262	ND		ug/kg	46.8	5.95	1	A
Aroclor 1268	ND		ug/kg	46.8	4.85	1	A
PCBs, Total	ND		ug/kg	46.8	4.16	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	96		30-150	A
Decachlorobiphenyl	76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	95		30-150	B
Decachlorobiphenyl	100		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-10
 Client ID: RB02_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:35
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 13:50
 Analyst: WR
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 06:08
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/27/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.4	3.23	1	A
Aroclor 1221	ND		ug/kg	36.4	3.65	1	A
Aroclor 1232	ND		ug/kg	36.4	7.72	1	A
Aroclor 1242	ND		ug/kg	36.4	4.91	1	A
Aroclor 1248	ND		ug/kg	36.4	5.46	1	A
Aroclor 1254	6.03	J	ug/kg	36.4	3.98	1	A
Aroclor 1260	12.0	J	ug/kg	36.4	6.73	1	B
Aroclor 1262	ND		ug/kg	36.4	4.62	1	A
Aroclor 1268	ND		ug/kg	36.4	3.77	1	A
PCBs, Total	18.0	J	ug/kg	36.4	3.23	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	A
Decachlorobiphenyl	78		30-150	A
2,4,5,6-Tetrachloro-m-xylene	89		30-150	B
Decachlorobiphenyl	108		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-11
 Client ID: RB02_13-15
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:40
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 15:20
 Analyst: HT
 Percent Solids: 82%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 06:08
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/27/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.3	3.40	1	A
Aroclor 1221	ND		ug/kg	38.3	3.84	1	A
Aroclor 1232	ND		ug/kg	38.3	8.13	1	A
Aroclor 1242	ND		ug/kg	38.3	5.17	1	A
Aroclor 1248	ND		ug/kg	38.3	5.75	1	A
Aroclor 1254	ND		ug/kg	38.3	4.20	1	A
Aroclor 1260	ND		ug/kg	38.3	7.09	1	A
Aroclor 1262	ND		ug/kg	38.3	4.87	1	A
Aroclor 1268	ND		ug/kg	38.3	3.97	1	A
PCBs, Total	ND		ug/kg	38.3	3.40	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	93		30-150	A
Decachlorobiphenyl	74		30-150	A
2,4,5,6-Tetrachloro-m-xylene	94		30-150	B
Decachlorobiphenyl	103		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8082A
 Analytical Date: 12/30/18 17:01
 Analyst: AWS

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 06:08
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/27/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-11 Batch: WG1192973-1						
Aroclor 1016	ND		ug/kg	32.5	2.88	A
Aroclor 1221	ND		ug/kg	32.5	3.25	A
Aroclor 1232	ND		ug/kg	32.5	6.88	A
Aroclor 1242	ND		ug/kg	32.5	4.38	A
Aroclor 1248	ND		ug/kg	32.5	4.87	A
Aroclor 1254	ND		ug/kg	32.5	3.55	A
Aroclor 1260	ND		ug/kg	32.5	6.00	A
Aroclor 1262	ND		ug/kg	32.5	4.12	A
Aroclor 1268	ND		ug/kg	32.5	3.36	A
PCBs, Total	ND		ug/kg	32.5	2.88	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	71		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-11 Batch: WG1192973-2 WG1192973-3									
Aroclor 1016	75		79		40-140	5		50	A
Aroclor 1260	69		71		40-140	3		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		79		30-150	A
Decachlorobiphenyl	71		75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	84		83		30-150	B
Decachlorobiphenyl	75		76		30-150	B

PESTICIDES

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-01
 Client ID: RB03_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:45
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/30/18 20:04
 Analyst: SL
 Percent Solids: 94%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 13:10
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.68	0.330	1	A
Lindane	ND		ug/kg	0.701	0.313	1	A
Alpha-BHC	ND		ug/kg	0.701	0.199	1	A
Beta-BHC	ND		ug/kg	1.68	0.638	1	A
Heptachlor	ND		ug/kg	0.841	0.377	1	A
Aldrin	ND		ug/kg	1.68	0.592	1	A
Heptachlor epoxide	ND		ug/kg	3.16	0.947	1	A
Endrin	ND		ug/kg	0.701	0.287	1	A
Endrin aldehyde	ND		ug/kg	2.10	0.736	1	A
Endrin ketone	ND		ug/kg	1.68	0.433	1	A
Dieldrin	ND		ug/kg	1.05	0.526	1	A
4,4'-DDE	ND		ug/kg	1.68	0.389	1	A
4,4'-DDD	ND		ug/kg	1.68	0.600	1	A
4,4'-DDT	ND		ug/kg	3.16	1.35	1	A
Endosulfan I	ND		ug/kg	1.68	0.398	1	A
Endosulfan II	1.02	JIP	ug/kg	1.68	0.562	1	A
Endosulfan sulfate	ND		ug/kg	0.701	0.334	1	A
Methoxychlor	ND		ug/kg	3.16	0.982	1	A
Toxaphene	ND		ug/kg	31.6	8.84	1	A
cis-Chlordane	ND		ug/kg	2.10	0.586	1	A
trans-Chlordane	0.657	JIP	ug/kg	2.10	0.555	1	A
Chlordane	ND		ug/kg	13.7	5.57	1	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-01

Date Collected: 12/26/18 09:45

Client ID: RB03_0-2

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89		30-150	B
Decachlorobiphenyl	87		30-150	B
2,4,5,6-Tetrachloro-m-xylene	103		30-150	A
Decachlorobiphenyl	111		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-01
 Client ID: RB03_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:45
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 22:06
 Analyst: DGM
 Percent Solids: 94%
 Methylation Date: 12/28/18 08:43

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	175	11.0	1	A
2,4,5-T	ND		ug/kg	175	5.42	1	A
2,4,5-TP (Silvex)	ND		ug/kg	175	4.66	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	127		30-150	A
DCAA	95		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-02
 Client ID: RB03_2-3
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:50
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 22:44
 Analyst: DGM
 Percent Solids: 90%
 Methylation Date: 12/28/18 08:43

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	183	11.5	1	A
2,4,5-T	ND		ug/kg	183	5.67	1	A
2,4,5-TP (Silvex)	ND		ug/kg	183	4.86	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	118		30-150	A
DCAA	84		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-02 D
 Client ID: RB03_2-3
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:50
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/30/18 20:17
 Analyst: SL
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 13:10
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	17.4	3.40	10	A
Lindane	ND		ug/kg	7.23	3.23	10	A
Alpha-BHC	ND		ug/kg	7.23	2.05	10	A
Beta-BHC	ND		ug/kg	17.4	6.58	10	A
Heptachlor	ND		ug/kg	8.68	3.89	10	A
Aldrin	ND		ug/kg	17.4	6.11	10	A
Heptachlor epoxide	ND		ug/kg	32.6	9.77	10	A
Endrin	ND		ug/kg	7.23	2.97	10	A
Endrin aldehyde	ND		ug/kg	21.7	7.60	10	A
Endrin ketone	ND		ug/kg	17.4	4.47	10	A
Dieldrin	ND		ug/kg	10.8	5.42	10	A
4,4'-DDE	ND		ug/kg	17.4	4.02	10	A
4,4'-DDD	ND		ug/kg	17.4	6.19	10	A
4,4'-DDT	ND		ug/kg	32.6	14.0	10	A
Endosulfan I	ND		ug/kg	17.4	4.10	10	A
Endosulfan II	ND		ug/kg	17.4	5.80	10	A
Endosulfan sulfate	ND		ug/kg	7.23	3.44	10	B
Methoxychlor	ND		ug/kg	32.6	10.1	10	A
Toxaphene	ND		ug/kg	326	91.2	10	A
cis-Chlordane	ND		ug/kg	21.7	6.05	10	A
trans-Chlordane	ND		ug/kg	21.7	5.73	10	A
Chlordane	ND		ug/kg	141	57.5	10	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-02 D

Date Collected: 12/26/18 09:50

Client ID: RB03_2-3

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	33		30-150	B
Decachlorobiphenyl	81		30-150	B
2,4,5,6-Tetrachloro-m-xylene	35		30-150	A
Decachlorobiphenyl	37		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-03
 Client ID: RB03_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:55
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 23:03
 Analyst: DGM
 Percent Solids: 82%
 Methylation Date: 12/28/18 08:43

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	203	12.8	1	A
2,4,5-T	ND		ug/kg	203	6.30	1	A
2,4,5-TP (Silvex)	ND		ug/kg	203	5.40	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	199	Q	30-150	A
DCAA	130		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-03 D
 Client ID: RB03_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 09:55
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/03/19 20:14
 Analyst: SL
 Percent Solids: 82%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 13:10
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	94.3	18.5	50	A
Lindane	ND		ug/kg	39.3	17.6	50	A
Alpha-BHC	ND		ug/kg	39.3	11.2	50	A
Beta-BHC	ND		ug/kg	94.3	35.7	50	A
Heptachlor	ND		ug/kg	47.1	21.1	50	A
Aldrin	ND		ug/kg	94.3	33.2	50	A
Heptachlor epoxide	ND		ug/kg	177	53.0	50	A
Endrin	ND		ug/kg	39.3	16.1	50	A
Endrin aldehyde	ND		ug/kg	118	41.2	50	A
Endrin ketone	ND		ug/kg	94.3	24.3	50	A
Dieldrin	ND		ug/kg	58.9	29.5	50	A
4,4'-DDE	ND		ug/kg	94.3	21.8	50	A
4,4'-DDD	ND		ug/kg	94.3	33.6	50	A
4,4'-DDT	ND	IP	ug/kg	177	75.8	50	A
Endosulfan I	ND		ug/kg	94.3	22.3	50	A
Endosulfan II	ND		ug/kg	94.3	31.5	50	A
Endosulfan sulfate	ND		ug/kg	39.3	18.7	50	A
Methoxychlor	ND		ug/kg	177	55.0	50	A
Toxaphene	ND		ug/kg	1770	495.	50	A
cis-Chlordane	ND		ug/kg	118	32.8	50	A
trans-Chlordane	ND		ug/kg	118	31.1	50	A
Chlordane	ND		ug/kg	766	312.	50	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-03 D

Date Collected: 12/26/18 09:55

Client ID: RB03_10-12

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-04
 Client ID: RB12_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 11:55
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/30/18 20:42
 Analyst: SL
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 13:10
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.74	0.341	1	A
Lindane	ND		ug/kg	0.726	0.325	1	A
Alpha-BHC	ND		ug/kg	0.726	0.206	1	A
Beta-BHC	ND		ug/kg	1.74	0.661	1	A
Heptachlor	ND		ug/kg	0.872	0.391	1	A
Aldrin	ND		ug/kg	1.74	0.614	1	A
Heptachlor epoxide	ND		ug/kg	3.27	0.981	1	A
Endrin	ND		ug/kg	0.726	0.298	1	A
Endrin aldehyde	ND		ug/kg	2.18	0.763	1	A
Endrin ketone	ND		ug/kg	1.74	0.449	1	A
Dieldrin	ND		ug/kg	1.09	0.545	1	A
4,4'-DDE	ND		ug/kg	1.74	0.403	1	A
4,4'-DDD	ND		ug/kg	1.74	0.622	1	A
4,4'-DDT	ND		ug/kg	3.27	1.40	1	A
Endosulfan I	ND		ug/kg	1.74	0.412	1	A
Endosulfan II	6.87	IP	ug/kg	1.74	0.583	1	A
Endosulfan sulfate	ND		ug/kg	0.726	0.346	1	A
Methoxychlor	ND		ug/kg	3.27	1.02	1	A
Toxaphene	ND		ug/kg	32.7	9.15	1	A
cis-Chlordane	ND		ug/kg	2.18	0.607	1	A
trans-Chlordane	0.956	JIP	ug/kg	2.18	0.575	1	A
Chlordane	ND		ug/kg	14.2	5.78	1	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-04

Date Collected: 12/26/18 11:55

Client ID: RB12_0-2

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	99		30-150	B
2,4,5,6-Tetrachloro-m-xylene	87		30-150	A
Decachlorobiphenyl	121		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-04
 Client ID: RB12_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 11:55
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 23:22
 Analyst: DGM
 Percent Solids: 91%
 Methylation Date: 12/28/18 08:43

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	183	11.5	1	A
2,4,5-T	ND		ug/kg	183	5.67	1	A
2,4,5-TP (Silvex)	ND		ug/kg	183	4.86	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	110		30-150	A
DCAA	94		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-05
 Client ID: RB12_8-9
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 23:41
 Analyst: DGM
 Percent Solids: 93%
 Methylation Date: 12/28/18 08:43

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	177	11.2	1	A
2,4,5-T	ND		ug/kg	177	5.50	1	A
2,4,5-TP (Silvex)	ND		ug/kg	177	4.72	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	97		30-150	A
DCAA	94		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-05 D
 Client ID: RB12_8-9
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:00
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/03/19 20:27
 Analyst: SL
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 13:10
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	34.3	6.72	20	A
Lindane	ND		ug/kg	14.3	6.40	20	A
Alpha-BHC	ND		ug/kg	14.3	4.06	20	A
Beta-BHC	ND		ug/kg	34.3	13.0	20	A
Heptachlor	ND		ug/kg	17.2	7.70	20	A
Aldrin	ND		ug/kg	34.3	12.1	20	A
Heptachlor epoxide	ND		ug/kg	64.4	19.3	20	A
Endrin	ND		ug/kg	14.3	5.86	20	A
Endrin aldehyde	ND		ug/kg	42.9	15.0	20	A
Endrin ketone	ND		ug/kg	34.3	8.84	20	A
Dieldrin	16.9	J	ug/kg	21.5	10.7	20	B
4,4'-DDE	ND		ug/kg	34.3	7.94	20	A
4,4'-DDD	ND		ug/kg	34.3	12.2	20	A
4,4'-DDT	ND		ug/kg	64.4	27.6	20	A
Endosulfan I	ND		ug/kg	34.3	8.11	20	A
Endosulfan II	ND		ug/kg	34.3	11.5	20	A
Endosulfan sulfate	ND		ug/kg	14.3	6.81	20	A
Methoxychlor	ND		ug/kg	64.4	20.0	20	A
Toxaphene	ND		ug/kg	644	180.	20	A
cis-Chlordane	ND		ug/kg	42.9	12.0	20	A
trans-Chlordane	ND		ug/kg	42.9	11.3	20	A
Chlordane	ND		ug/kg	279	114.	20	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-05 D

Date Collected: 12/26/18 12:00

Client ID: RB12_8-9

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-06
 Client ID: RB12_9-10
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:05
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/30/18 21:08
 Analyst: SL
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 13:10
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.74	0.340	1	A
Lindane	ND		ug/kg	0.724	0.324	1	A
Alpha-BHC	ND		ug/kg	0.724	0.206	1	A
Beta-BHC	ND		ug/kg	1.74	0.659	1	A
Heptachlor	ND		ug/kg	0.869	0.390	1	A
Aldrin	ND		ug/kg	1.74	0.612	1	A
Heptachlor epoxide	ND	IP	ug/kg	3.26	0.978	1	B
Endrin	1.60	P	ug/kg	0.724	0.297	1	A
Endrin aldehyde	ND		ug/kg	2.17	0.760	1	A
Endrin ketone	ND		ug/kg	1.74	0.448	1	A
Dieldrin	ND		ug/kg	1.09	0.543	1	A
4,4'-DDE	ND		ug/kg	1.74	0.402	1	A
4,4'-DDD	ND		ug/kg	1.74	0.620	1	A
4,4'-DDT	ND		ug/kg	3.26	1.40	1	A
Endosulfan I	ND		ug/kg	1.74	0.411	1	A
Endosulfan II	ND		ug/kg	1.74	0.581	1	A
Endosulfan sulfate	ND		ug/kg	0.724	0.345	1	A
Methoxychlor	ND		ug/kg	3.26	1.01	1	A
Toxaphene	ND		ug/kg	32.6	9.12	1	A
cis-Chlordane	ND		ug/kg	2.17	0.605	1	A
trans-Chlordane	0.748	JIP	ug/kg	2.17	0.574	1	A
Chlordane	ND		ug/kg	14.1	5.76	1	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-06

Date Collected: 12/26/18 12:05

Client ID: RB12_9-10

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	108		30-150	B
2,4,5,6-Tetrachloro-m-xylene	97		30-150	A
Decachlorobiphenyl	99		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-06
 Client ID: RB12_9-10
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:05
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/01/19 00:00
 Analyst: DGM
 Percent Solids: 88%
 Methylation Date: 12/28/18 08:43

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	184	11.6	1	A
2,4,5-T	ND		ug/kg	184	5.71	1	A
2,4,5-TP (Silvex)	ND		ug/kg	184	4.90	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	125		30-150	A
DCAA	93		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-07
 Client ID: RB12_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:10
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/30/18 21:20
 Analyst: SL
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 13:10
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.75	0.342	1	A
Lindane	ND		ug/kg	0.729	0.326	1	A
Alpha-BHC	ND		ug/kg	0.729	0.207	1	A
Beta-BHC	ND		ug/kg	1.75	0.663	1	A
Heptachlor	ND		ug/kg	0.874	0.392	1	A
Aldrin	ND		ug/kg	1.75	0.616	1	A
Heptachlor epoxide	ND		ug/kg	3.28	0.984	1	A
Endrin	ND		ug/kg	0.729	0.299	1	A
Endrin aldehyde	ND		ug/kg	2.19	0.765	1	A
Endrin ketone	ND		ug/kg	1.75	0.450	1	A
Dieldrin	ND		ug/kg	1.09	0.546	1	A
4,4'-DDE	ND		ug/kg	1.75	0.404	1	A
4,4'-DDD	ND		ug/kg	1.75	0.624	1	A
4,4'-DDT	ND		ug/kg	3.28	1.41	1	A
Endosulfan I	ND		ug/kg	1.75	0.413	1	A
Endosulfan II	ND		ug/kg	1.75	0.584	1	A
Endosulfan sulfate	ND		ug/kg	0.729	0.347	1	A
Methoxychlor	ND		ug/kg	3.28	1.02	1	A
Toxaphene	ND		ug/kg	32.8	9.18	1	A
cis-Chlordane	ND		ug/kg	2.19	0.609	1	A
trans-Chlordane	ND		ug/kg	2.19	0.577	1	A
Chlordane	ND		ug/kg	14.2	5.79	1	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-07

Date Collected: 12/26/18 12:10

Client ID: RB12_10-12

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	B
Decachlorobiphenyl	98		30-150	B
2,4,5,6-Tetrachloro-m-xylene	322	Q	30-150	A
Decachlorobiphenyl	109		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-07
 Client ID: RB12_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 12:10
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/01/19 00:18
 Analyst: DGM
 Percent Solids: 91%
 Methylation Date: 12/28/18 08:43

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	180	11.3	1	A
2,4,5-T	ND		ug/kg	180	5.57	1	A
2,4,5-TP (Silvex)	ND		ug/kg	180	4.78	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	119		30-150	A
DCAA	95		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-08
 Client ID: RB02_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:25
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/30/18 21:33
 Analyst: SL
 Percent Solids: 94%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 13:10
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.65	0.324	1	A
Lindane	ND		ug/kg	0.689	0.308	1	A
Alpha-BHC	ND		ug/kg	0.689	0.196	1	A
Beta-BHC	ND		ug/kg	1.65	0.627	1	A
Heptachlor	ND		ug/kg	0.826	0.370	1	A
Aldrin	ND		ug/kg	1.65	0.582	1	A
Heptachlor epoxide	ND		ug/kg	3.10	0.930	1	A
Endrin	ND		ug/kg	0.689	0.282	1	A
Endrin aldehyde	ND		ug/kg	2.07	0.723	1	A
Endrin ketone	ND		ug/kg	1.65	0.426	1	A
Dieldrin	ND		ug/kg	1.03	0.516	1	A
4,4'-DDE	ND		ug/kg	1.65	0.382	1	A
4,4'-DDD	ND		ug/kg	1.65	0.590	1	A
4,4'-DDT	ND		ug/kg	3.10	1.33	1	A
Endosulfan I	ND		ug/kg	1.65	0.390	1	A
Endosulfan II	ND		ug/kg	1.65	0.552	1	A
Endosulfan sulfate	ND		ug/kg	0.689	0.328	1	A
Methoxychlor	ND		ug/kg	3.10	0.964	1	A
Toxaphene	ND		ug/kg	31.0	8.68	1	A
cis-Chlordane	ND		ug/kg	2.07	0.576	1	A
trans-Chlordane	ND		ug/kg	2.07	0.545	1	A
Chlordane	ND		ug/kg	13.4	5.47	1	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-08
 Client ID: RB02_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:25
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	100		30-150	B
Decachlorobiphenyl	79		30-150	B
2,4,5,6-Tetrachloro-m-xylene	117		30-150	A
Decachlorobiphenyl	87		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-08
 Client ID: RB02_0-2
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:25
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/01/19 00:37
 Analyst: DGM
 Percent Solids: 94%
 Methylation Date: 12/28/18 08:43

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	176	11.1	1	A
2,4,5-T	ND		ug/kg	176	5.46	1	A
2,4,5-TP (Silvex)	ND		ug/kg	176	4.69	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	96		30-150	A
DCAA	87		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-09 D
 Client ID: RB02_7-9
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:30
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/03/19 20:40
 Analyst: SL
 Percent Solids: 70%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 13:10
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	10.9	2.14	5	A
Lindane	ND		ug/kg	4.56	2.04	5	A
Alpha-BHC	ND		ug/kg	4.56	1.29	5	A
Beta-BHC	ND		ug/kg	10.9	4.15	5	A
Heptachlor	ND		ug/kg	5.47	2.45	5	A
Aldrin	ND		ug/kg	10.9	3.85	5	A
Heptachlor epoxide	ND		ug/kg	20.5	6.15	5	A
Endrin	ND		ug/kg	4.56	1.87	5	A
Endrin aldehyde	ND		ug/kg	13.7	4.78	5	A
Endrin ketone	ND		ug/kg	10.9	2.82	5	A
Dieldrin	ND		ug/kg	6.84	3.42	5	A
4,4'-DDE	ND		ug/kg	10.9	2.53	5	A
4,4'-DDD	ND		ug/kg	10.9	3.90	5	A
4,4'-DDT	ND		ug/kg	20.5	8.79	5	A
Endosulfan I	ND		ug/kg	10.9	2.58	5	A
Endosulfan II	ND		ug/kg	10.9	3.65	5	A
Endosulfan sulfate	ND		ug/kg	4.56	2.17	5	A
Methoxychlor	ND		ug/kg	20.5	6.38	5	A
Toxaphene	ND		ug/kg	205	57.4	5	A
cis-Chlordane	ND		ug/kg	13.7	3.81	5	A
trans-Chlordane	ND		ug/kg	13.7	3.61	5	A
Chlordane	ND		ug/kg	88.9	36.2	5	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-09 D

Date Collected: 12/26/18 13:30

Client ID: RB02_7-9

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	100		30-150	B
2,4,5,6-Tetrachloro-m-xylene	108		30-150	A
Decachlorobiphenyl	132		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-09 D
 Client ID: RB02_7-9
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:30
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/03/19 13:50
 Analyst: DGM
 Percent Solids: 70%
 Methylation Date: 12/28/18 08:43

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	4720	297.	20	B
2,4,5-T	ND		ug/kg	4720	146.	20	B
2,4,5-TP (Silvex)	ND		ug/kg	4720	125.	20	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	0	Q	30-150	A
DCAA	0	Q	30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-10
 Client ID: RB02_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:35
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/02/19 10:57
 Analyst: BM
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 13:10
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.72	0.337	1	A
Lindane	ND		ug/kg	0.716	0.320	1	A
Alpha-BHC	ND		ug/kg	0.716	0.203	1	A
Beta-BHC	ND		ug/kg	1.72	0.652	1	A
Heptachlor	ND		ug/kg	0.860	0.385	1	A
Aldrin	ND		ug/kg	1.72	0.605	1	A
Heptachlor epoxide	ND		ug/kg	3.22	0.967	1	A
Endrin	ND		ug/kg	0.716	0.294	1	A
Endrin aldehyde	ND		ug/kg	2.15	0.752	1	A
Endrin ketone	ND		ug/kg	1.72	0.443	1	A
Dieldrin	ND		ug/kg	1.07	0.537	1	A
4,4'-DDE	ND		ug/kg	1.72	0.398	1	A
4,4'-DDD	ND		ug/kg	1.72	0.613	1	A
4,4'-DDT	ND		ug/kg	3.22	1.38	1	A
Endosulfan I	ND		ug/kg	1.72	0.406	1	A
Endosulfan II	2.05	IP	ug/kg	1.72	0.575	1	A
Endosulfan sulfate	ND		ug/kg	0.716	0.341	1	A
Methoxychlor	ND		ug/kg	3.22	1.00	1	A
Toxaphene	ND		ug/kg	32.2	9.03	1	A
cis-Chlordane	ND		ug/kg	2.15	0.599	1	A
trans-Chlordane	ND		ug/kg	2.15	0.567	1	A
Chlordane	ND		ug/kg	14.0	5.70	1	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-10

Date Collected: 12/26/18 13:35

Client ID: RB02_10-12

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	93		30-150	B
2,4,5,6-Tetrachloro-m-xylene	254	Q	30-150	A
Decachlorobiphenyl	113		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-10
 Client ID: RB02_10-12
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:35
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/01/19 01:15
 Analyst: DGM
 Percent Solids: 91%
 Methylation Date: 12/28/18 08:43

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	180	11.3	1	A
2,4,5-T	ND		ug/kg	180	5.57	1	A
2,4,5-TP (Silvex)	ND		ug/kg	180	4.78	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	98		30-150	A
DCAA	87		30-150	B

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-11
Client ID: RB02_13-15
Sample Location: BRONX, NY

Date Collected: 12/26/18 13:40
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 01/02/19 11:10
Analyst: BM
Percent Solids: 82%

Extraction Method: EPA 3546
Extraction Date: 12/27/18 13:10
Cleanup Method: EPA 3620B
Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.85	0.362	1	A
Lindane	ND		ug/kg	0.769	0.344	1	A
Alpha-BHC	ND		ug/kg	0.769	0.218	1	A
Beta-BHC	ND		ug/kg	1.85	0.700	1	A
Heptachlor	ND		ug/kg	0.923	0.414	1	A
Aldrin	ND		ug/kg	1.85	0.650	1	A
Heptachlor epoxide	ND		ug/kg	3.46	1.04	1	A
Endrin	ND		ug/kg	0.769	0.315	1	A
Endrin aldehyde	ND		ug/kg	2.31	0.808	1	A
Endrin ketone	ND		ug/kg	1.85	0.475	1	A
Dieldrin	ND		ug/kg	1.15	0.577	1	A
4,4'-DDE	ND		ug/kg	1.85	0.427	1	A
4,4'-DDD	ND		ug/kg	1.85	0.658	1	A
4,4'-DDT	ND		ug/kg	3.46	1.48	1	A
Endosulfan I	ND		ug/kg	1.85	0.436	1	A
Endosulfan II	ND		ug/kg	1.85	0.617	1	A
Endosulfan sulfate	ND		ug/kg	0.769	0.366	1	A
Methoxychlor	ND		ug/kg	3.46	1.08	1	A
Toxaphene	ND		ug/kg	34.6	9.69	1	A
cis-Chlordane	ND		ug/kg	2.31	0.643	1	A
trans-Chlordane	ND		ug/kg	2.31	0.609	1	A
Chlordane	ND		ug/kg	15.0	6.12	1	A

Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-11

Date Collected: 12/26/18 13:40

Client ID: RB02_13-15

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	55		30-150	B
Decachlorobiphenyl	75		30-150	B
2,4,5,6-Tetrachloro-m-xylene	3520	Q	30-150	A
Decachlorobiphenyl	68		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-11
 Client ID: RB02_13-15
 Sample Location: BRONX, NY

Date Collected: 12/26/18 13:40
 Date Received: 12/26/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/01/19 01:34
 Analyst: DGM
 Percent Solids: 82%
 Methylation Date: 12/28/18 08:43

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:07

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	202	12.7	1	A
2,4,5-T	ND		ug/kg	202	6.26	1	A
2,4,5-TP (Silvex)	ND		ug/kg	202	5.37	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	135		30-150	A
DCAA	100		30-150	B

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 12/28/18 11:37
 Analyst: JB

Extraction Method: EPA 3546
 Extraction Date: 12/27/18 13:10
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-11 Batch: WG1193145-1						
Delta-BHC	ND		ug/kg	1.58	0.310	A
Lindane	ND		ug/kg	0.659	0.295	A
Alpha-BHC	ND		ug/kg	0.659	0.187	A
Beta-BHC	ND		ug/kg	1.58	0.600	A
Heptachlor	ND		ug/kg	0.791	0.355	A
Aldrin	ND		ug/kg	1.58	0.557	A
Heptachlor epoxide	ND		ug/kg	2.97	0.890	A
Endrin	ND		ug/kg	0.659	0.270	A
Endrin aldehyde	ND		ug/kg	1.98	0.692	A
Endrin ketone	ND		ug/kg	1.58	0.407	A
Dieldrin	ND		ug/kg	0.989	0.494	A
4,4'-DDE	ND		ug/kg	1.58	0.366	A
4,4'-DDD	ND		ug/kg	1.58	0.564	A
4,4'-DDT	ND		ug/kg	2.97	1.27	A
Endosulfan I	ND		ug/kg	1.58	0.374	A
Endosulfan II	ND		ug/kg	1.58	0.529	A
Endosulfan sulfate	ND		ug/kg	0.659	0.314	A
Methoxychlor	ND		ug/kg	2.97	0.923	A
Toxaphene	ND		ug/kg	29.7	8.30	A
cis-Chlordane	ND		ug/kg	1.98	0.551	A
trans-Chlordane	ND		ug/kg	1.98	0.522	A
Chlordane	ND		ug/kg	12.8	5.24	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 12/28/18 11:37
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 12/27/18 13:10
Cleanup Method: EPA 3620B
Cleanup Date: 12/28/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-11 Batch: WG1193145-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		30-150	B
Decachlorobiphenyl	86		30-150	B
2,4,5,6-Tetrachloro-m-xylene	90		30-150	A
Decachlorobiphenyl	111		30-150	A

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8151A
 Analytical Date: 12/31/18 06:23
 Analyst: KEG

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 16:06

Methylation Date: 12/28/18 08:43

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-11 Batch: WG1193211-1						
2,4-D	ND		ug/kg	164	10.3	A
2,4,5-T	ND		ug/kg	164	5.07	A
2,4,5-TP (Silvex)	ND		ug/kg	164	4.35	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	93		30-150	A
DCAA	89		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-11 Batch: WG1193145-2 WG1193145-3									
Delta-BHC	100		108		30-150	8		30	A
Lindane	99		106		30-150	7		30	A
Alpha-BHC	107		106		30-150	1		30	A
Beta-BHC	88		95		30-150	8		30	A
Heptachlor	96		105		30-150	9		30	A
Aldrin	92		102		30-150	10		30	A
Heptachlor epoxide	103		114		30-150	10		30	A
Endrin	106		115		30-150	8		30	A
Endrin aldehyde	86		93		30-150	8		30	A
Endrin ketone	120		121		30-150	1		30	A
Dieldrin	111		121		30-150	9		30	A
4,4'-DDE	92		98		30-150	6		30	A
4,4'-DDD	103		116		30-150	12		30	A
4,4'-DDT	101		117		30-150	15		30	A
Endosulfan I	91		98		30-150	7		30	A
Endosulfan II	103		113		30-150	9		30	A
Endosulfan sulfate	98		97		30-150	1		30	A
Methoxychlor	104		107		30-150	3		30	A
cis-Chlordane	68		73		30-150	7		30	A
trans-Chlordane	76		70		30-150	8		30	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-11 Batch: WG1193145-2 WG1193145-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	83		87		30-150	B
Decachlorobiphenyl	88		91		30-150	B
2,4,5,6-Tetrachloro-m-xylene	89		92		30-150	A
Decachlorobiphenyl	114		116		30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-11 Batch: WG1193211-2 WG1193211-3									
2,4-D	116		131		30-150	12		30	A
2,4,5-T	95		94		30-150	1		30	A
2,4,5-TP (Silvex)	82		82		30-150	0		30	A

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria	Column
DCAA	97		100		30-150	A
DCAA	100		106		30-150	B

METALS

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-01

Date Collected: 12/26/18 09:45

Client ID: RB03_0-2

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5000		mg/kg	8.11	2.19	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Antimony, Total	8.09		mg/kg	4.05	0.308	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Arsenic, Total	17.2		mg/kg	0.811	0.169	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Barium, Total	178		mg/kg	0.811	0.141	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Beryllium, Total	0.260	J	mg/kg	0.405	0.027	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Cadmium, Total	7.40		mg/kg	0.811	0.080	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Calcium, Total	16300		mg/kg	8.11	2.84	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Chromium, Total	18.0		mg/kg	0.811	0.078	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Cobalt, Total	7.62		mg/kg	1.62	0.135	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Copper, Total	270		mg/kg	0.811	0.209	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Iron, Total	34000		mg/kg	4.05	0.732	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Lead, Total	621		mg/kg	4.05	0.217	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Magnesium, Total	2650		mg/kg	8.11	1.25	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Manganese, Total	229		mg/kg	0.811	0.129	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Mercury, Total	1.32		mg/kg	0.067	0.014	1	12/28/18 06:00	01/03/19 21:02	EPA 7471B	1,7471B	EA
Nickel, Total	19.2		mg/kg	2.03	0.196	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Potassium, Total	888		mg/kg	203	11.7	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Selenium, Total	2.40		mg/kg	1.62	0.209	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Silver, Total	35.7		mg/kg	0.811	0.230	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Sodium, Total	322		mg/kg	162	2.55	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.62	0.255	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Vanadium, Total	23.4		mg/kg	0.811	0.165	2	12/27/18 20:00	01/03/19 01:02	EPA 3050B	1,6010D	AB
Zinc, Total	3040		mg/kg	40.5	2.38	20	12/27/18 20:00	01/03/19 03:58	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	18	J	mg/kg	0.85	0.85	1		01/03/19 01:02	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-02

Date Collected: 12/26/18 09:50

Client ID: RB03_2-3

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	3840		mg/kg	8.73	2.36	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Antimony, Total	1.88	J	mg/kg	4.36	0.332	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Arsenic, Total	7.86		mg/kg	0.873	0.182	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Barium, Total	137		mg/kg	0.873	0.152	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Beryllium, Total	0.384	J	mg/kg	0.436	0.029	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.873	0.086	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Calcium, Total	19400		mg/kg	8.73	3.06	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Chromium, Total	7.80		mg/kg	0.873	0.084	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Cobalt, Total	5.49		mg/kg	1.75	0.145	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Copper, Total	150		mg/kg	0.873	0.225	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Iron, Total	10800		mg/kg	4.36	0.788	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Lead, Total	108		mg/kg	4.36	0.234	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Magnesium, Total	5700		mg/kg	8.73	1.34	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Manganese, Total	63.2		mg/kg	0.873	0.139	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Mercury, Total	1.83		mg/kg	0.070	0.015	1	12/28/18 06:00	01/03/19 21:04	EPA 7471B	1,7471B	EA
Nickel, Total	25.6		mg/kg	2.18	0.211	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Potassium, Total	440		mg/kg	218	12.6	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Selenium, Total	0.864	J	mg/kg	1.75	0.225	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Silver, Total	9.66		mg/kg	0.873	0.247	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Sodium, Total	260		mg/kg	175	2.75	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.75	0.275	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Vanadium, Total	17.4		mg/kg	0.873	0.177	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
Zinc, Total	277		mg/kg	4.36	0.256	2	12/27/18 20:00	01/03/19 01:06	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	7.8		mg/kg	0.89	0.89	1		01/03/19 01:06	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-03

Date Collected: 12/26/18 09:55

Client ID: RB03_10-12

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5830		mg/kg	9.52	2.57	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Antimony, Total	0.790	J	mg/kg	4.76	0.362	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Arsenic, Total	2.94		mg/kg	0.952	0.198	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Barium, Total	56.9		mg/kg	0.952	0.166	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Beryllium, Total	0.190	J	mg/kg	0.476	0.031	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.952	0.093	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Calcium, Total	4160		mg/kg	9.52	3.33	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Chromium, Total	13.9		mg/kg	0.952	0.091	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Cobalt, Total	7.86		mg/kg	1.90	0.158	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Copper, Total	126		mg/kg	0.952	0.246	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Iron, Total	16200		mg/kg	4.76	0.859	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Lead, Total	51.8		mg/kg	4.76	0.255	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Magnesium, Total	2660		mg/kg	9.52	1.46	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Manganese, Total	112		mg/kg	0.952	0.151	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Mercury, Total	0.226		mg/kg	0.077	0.016	1	12/28/18 06:00	01/03/19 21:06	EPA 7471B	1,7471B	EA
Nickel, Total	14.9		mg/kg	2.38	0.230	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Potassium, Total	2060		mg/kg	238	13.7	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Selenium, Total	0.523	J	mg/kg	1.90	0.246	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Silver, Total	0.580	J	mg/kg	0.952	0.269	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Sodium, Total	197		mg/kg	190	3.00	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.90	0.300	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Vanadium, Total	21.6		mg/kg	0.952	0.193	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
Zinc, Total	430		mg/kg	4.76	0.279	2	12/27/18 20:00	01/03/19 01:10	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	14		mg/kg	0.98	0.98	1		01/03/19 01:10	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-04

Date Collected: 12/26/18 11:55

Client ID: RB12_0-2

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	3080		mg/kg	8.67	2.34	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Antimony, Total	0.988	J	mg/kg	4.33	0.329	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Arsenic, Total	6.86		mg/kg	0.867	0.180	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Barium, Total	92.6		mg/kg	0.867	0.151	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Beryllium, Total	0.269	J	mg/kg	0.433	0.029	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.867	0.085	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Calcium, Total	28600		mg/kg	8.67	3.03	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Chromium, Total	7.26		mg/kg	0.867	0.083	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Cobalt, Total	5.44		mg/kg	1.73	0.144	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Copper, Total	56.0		mg/kg	0.867	0.224	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Iron, Total	7630		mg/kg	4.33	0.782	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Lead, Total	162		mg/kg	4.33	0.232	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Magnesium, Total	1240		mg/kg	8.67	1.33	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Manganese, Total	72.8		mg/kg	0.867	0.138	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Mercury, Total	0.446		mg/kg	0.069	0.015	1	12/28/18 06:00	01/03/19 21:08	EPA 7471B	1,7471B	EA
Nickel, Total	18.9		mg/kg	2.17	0.210	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Potassium, Total	1260		mg/kg	217	12.5	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Selenium, Total	0.373	J	mg/kg	1.73	0.224	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Silver, Total	0.303	J	mg/kg	0.867	0.245	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Sodium, Total	643		mg/kg	173	2.73	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.73	0.273	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Vanadium, Total	17.7		mg/kg	0.867	0.176	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
Zinc, Total	95.8		mg/kg	4.33	0.254	2	12/27/18 20:00	01/03/19 01:15	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	7.3		mg/kg	0.88	0.88	1		01/03/19 01:15	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-05

Date Collected: 12/26/18 12:00

Client ID: RB12_8-9

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	8460		mg/kg	8.36	2.26	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.18	0.318	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Arsenic, Total	1.47		mg/kg	0.836	0.174	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Barium, Total	73.8		mg/kg	0.836	0.146	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Beryllium, Total	0.410	J	mg/kg	0.418	0.028	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.836	0.082	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Calcium, Total	11700		mg/kg	8.36	2.93	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Chromium, Total	18.7		mg/kg	0.836	0.080	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Cobalt, Total	11.7		mg/kg	1.67	0.139	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Copper, Total	24.2		mg/kg	0.836	0.216	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Iron, Total	18200		mg/kg	4.18	0.755	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Lead, Total	27.3		mg/kg	4.18	0.224	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Magnesium, Total	3040		mg/kg	8.36	1.29	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Manganese, Total	248		mg/kg	0.836	0.133	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Mercury, Total	0.161		mg/kg	0.068	0.014	1	12/28/18 06:00	01/03/19 21:10	EPA 7471B	1,7471B	EA
Nickel, Total	17.4		mg/kg	2.09	0.202	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Potassium, Total	3130		mg/kg	209	12.0	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	1.67	0.216	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.836	0.237	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Sodium, Total	55.5	J	mg/kg	167	2.63	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.67	0.263	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Vanadium, Total	26.4		mg/kg	0.836	0.170	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
Zinc, Total	52.8		mg/kg	4.18	0.245	2	12/27/18 20:00	01/03/19 01:19	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	19		mg/kg	0.86	0.86	1		01/03/19 01:19	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-06

Date Collected: 12/26/18 12:05

Client ID: RB12_9-10

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	8610		mg/kg	9.03	2.44	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.52	0.343	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Arsenic, Total	1.97		mg/kg	0.903	0.188	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Barium, Total	129		mg/kg	0.903	0.157	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Beryllium, Total	0.244	J	mg/kg	0.452	0.030	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.903	0.089	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Calcium, Total	4200		mg/kg	9.03	3.16	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Chromium, Total	19.8		mg/kg	0.903	0.087	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Cobalt, Total	13.4		mg/kg	1.81	0.150	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Copper, Total	42.3		mg/kg	0.903	0.233	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Iron, Total	17800		mg/kg	4.52	0.816	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Lead, Total	280		mg/kg	4.52	0.242	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Magnesium, Total	5290		mg/kg	9.03	1.39	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Manganese, Total	149		mg/kg	0.903	0.144	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Mercury, Total	0.220		mg/kg	0.072	0.015	1	12/28/18 06:00	01/03/19 21:12	EPA 7471B	1,7471B	EA
Nickel, Total	26.8		mg/kg	2.26	0.219	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Potassium, Total	6230		mg/kg	226	13.0	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Selenium, Total	0.596	J	mg/kg	1.81	0.233	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.903	0.256	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Sodium, Total	150	J	mg/kg	181	2.84	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.81	0.284	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Vanadium, Total	25.8		mg/kg	0.903	0.183	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
Zinc, Total	76.0		mg/kg	4.52	0.265	2	12/27/18 20:00	01/03/19 01:56	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	20		mg/kg	0.91	0.91	1		01/03/19 01:56	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-07

Date Collected: 12/26/18 12:10

Client ID: RB12_10-12

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5040		mg/kg	8.47	2.29	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Antimony, Total	1.05	J	mg/kg	4.24	0.322	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Arsenic, Total	7.58		mg/kg	0.847	0.176	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Barium, Total	56.8		mg/kg	0.847	0.147	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Beryllium, Total	0.220	J	mg/kg	0.424	0.028	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.847	0.083	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Calcium, Total	22700		mg/kg	8.47	2.97	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Chromium, Total	11.0		mg/kg	0.847	0.081	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Cobalt, Total	5.78		mg/kg	1.69	0.141	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Copper, Total	52.4		mg/kg	0.847	0.219	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Iron, Total	9100		mg/kg	4.24	0.765	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Lead, Total	126		mg/kg	4.24	0.227	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Magnesium, Total	2260		mg/kg	8.47	1.30	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Manganese, Total	148		mg/kg	0.847	0.135	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Mercury, Total	0.725		mg/kg	0.070	0.015	1	12/28/18 06:00	01/03/19 21:18	EPA 7471B	1,7471B	EA
Nickel, Total	14.1		mg/kg	2.12	0.205	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Potassium, Total	1470		mg/kg	212	12.2	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Selenium, Total	0.492	J	mg/kg	1.69	0.219	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Silver, Total	0.830	J	mg/kg	0.847	0.240	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Sodium, Total	187		mg/kg	169	2.67	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.69	0.267	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Vanadium, Total	17.0		mg/kg	0.847	0.172	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
Zinc, Total	69.2		mg/kg	4.24	0.248	2	12/27/18 20:00	01/03/19 02:00	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	11		mg/kg	0.88	0.88	1		01/03/19 02:00	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-08

Date Collected: 12/26/18 13:25

Client ID: RB02_0-2

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	2920		mg/kg	8.01	2.16	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.00	0.304	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Arsenic, Total	10.3		mg/kg	0.801	0.167	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Barium, Total	53.4		mg/kg	0.801	0.139	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Beryllium, Total	0.112	J	mg/kg	0.400	0.026	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.801	0.079	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Calcium, Total	48200		mg/kg	8.01	2.80	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Chromium, Total	7.26		mg/kg	0.801	0.077	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Cobalt, Total	3.20		mg/kg	1.60	0.133	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Copper, Total	8.00		mg/kg	0.801	0.207	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Iron, Total	6460		mg/kg	4.00	0.723	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Lead, Total	80.8		mg/kg	4.00	0.215	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Magnesium, Total	5460		mg/kg	8.01	1.23	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Manganese, Total	93.2		mg/kg	0.801	0.127	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Mercury, Total	0.076		mg/kg	0.067	0.014	1	12/28/18 06:00	01/03/19 21:20	EPA 7471B	1,7471B	EA
Nickel, Total	6.16		mg/kg	2.00	0.194	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Potassium, Total	1060		mg/kg	200	11.5	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Selenium, Total	0.489	J	mg/kg	1.60	0.207	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.801	0.227	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Sodium, Total	238		mg/kg	160	2.52	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.60	0.252	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Vanadium, Total	9.12		mg/kg	0.801	0.163	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
Zinc, Total	39.7		mg/kg	4.00	0.235	2	12/27/18 20:00	01/03/19 02:05	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	7.3		mg/kg	0.86	0.86	1		01/03/19 02:05	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-09

Date Collected: 12/26/18 13:30

Client ID: RB02_7-9

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 70%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	3560		mg/kg	11.0	2.96	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	5.49	0.417	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Arsenic, Total	6.20		mg/kg	1.10	0.228	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Barium, Total	52.8		mg/kg	1.10	0.191	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Beryllium, Total	0.209	J	mg/kg	0.549	0.036	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	1.10	0.108	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Calcium, Total	293000		mg/kg	110	38.4	20	12/27/18 20:00	01/03/19 03:50	EPA 3050B	1,6010D	AB
Chromium, Total	5.00		mg/kg	1.10	0.105	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Cobalt, Total	2.81		mg/kg	2.20	0.182	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Copper, Total	35.5		mg/kg	1.10	0.283	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Iron, Total	4600		mg/kg	5.49	0.992	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Lead, Total	95.4		mg/kg	5.49	0.294	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Magnesium, Total	716		mg/kg	11.0	1.69	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Manganese, Total	75.2		mg/kg	1.10	0.175	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.090	0.019	1	12/28/18 06:00	01/03/19 21:22	EPA 7471B	1,7471B	EA
Nickel, Total	6.91		mg/kg	2.74	0.266	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Potassium, Total	429		mg/kg	274	15.8	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Selenium, Total	0.516	J	mg/kg	2.20	0.283	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	1.10	0.311	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Sodium, Total	1090		mg/kg	220	3.46	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	2.20	0.346	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Vanadium, Total	6.37		mg/kg	1.10	0.223	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
Zinc, Total	82.7		mg/kg	5.49	0.322	2	12/27/18 20:00	01/03/19 02:09	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	5.0		mg/kg	1.1	1.1	1		01/03/19 02:09	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.**Lab Number:** L1853111**Project Number:** 170487001**Report Date:** 01/04/19**SAMPLE RESULTS**

Lab ID: L1853111-10

Date Collected: 12/26/18 13:35

Client ID: RB02_10-12

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4560		mg/kg	8.35	2.25	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Antimony, Total	0.359	J	mg/kg	4.17	0.317	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Arsenic, Total	2.58		mg/kg	0.835	0.174	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Barium, Total	75.8		mg/kg	0.835	0.145	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Beryllium, Total	0.217	J	mg/kg	0.417	0.028	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.835	0.082	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Calcium, Total	15900		mg/kg	8.35	2.92	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Chromium, Total	11.5		mg/kg	0.835	0.080	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Cobalt, Total	5.31		mg/kg	1.67	0.138	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Copper, Total	23.9		mg/kg	0.835	0.215	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Iron, Total	8740		mg/kg	4.17	0.754	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Lead, Total	198		mg/kg	4.17	0.224	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Magnesium, Total	2750		mg/kg	8.35	1.28	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Manganese, Total	124		mg/kg	0.835	0.133	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Mercury, Total	0.768		mg/kg	0.069	0.015	1	12/28/18 06:00	01/03/19 21:24	EPA 7471B	1,7471B	EA
Nickel, Total	12.6		mg/kg	2.09	0.202	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Potassium, Total	1090		mg/kg	209	12.0	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Selenium, Total	0.676	J	mg/kg	1.67	0.215	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.835	0.236	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Sodium, Total	192		mg/kg	167	2.63	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.67	0.263	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Vanadium, Total	13.7		mg/kg	0.835	0.169	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
Zinc, Total	95.7		mg/kg	4.17	0.244	2	12/27/18 20:00	01/03/19 02:13	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	12		mg/kg	0.88	0.88	1		01/03/19 02:13	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-11

Date Collected: 12/26/18 13:40

Client ID: RB02_13-15

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6650		mg/kg	9.76	2.63	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Antimony, Total	0.410	J	mg/kg	4.88	0.371	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Arsenic, Total	4.21		mg/kg	0.976	0.203	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Barium, Total	74.0		mg/kg	0.976	0.170	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Beryllium, Total	0.400	J	mg/kg	0.488	0.032	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.976	0.096	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Calcium, Total	7550		mg/kg	9.76	3.41	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Chromium, Total	15.7		mg/kg	0.976	0.094	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Cobalt, Total	8.05		mg/kg	1.95	0.162	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Copper, Total	19.0		mg/kg	0.976	0.252	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Iron, Total	13700		mg/kg	4.88	0.881	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Lead, Total	388		mg/kg	4.88	0.261	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Magnesium, Total	3560		mg/kg	9.76	1.50	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Manganese, Total	265		mg/kg	0.976	0.155	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Mercury, Total	0.476		mg/kg	0.077	0.016	1	12/28/18 06:00	01/03/19 21:26	EPA 7471B	1,7471B	EA
Nickel, Total	14.3		mg/kg	2.44	0.236	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Potassium, Total	2320		mg/kg	244	14.0	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Selenium, Total	0.488	J	mg/kg	1.95	0.252	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.976	0.276	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Sodium, Total	264		mg/kg	195	3.07	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.95	0.307	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Vanadium, Total	21.6		mg/kg	0.976	0.198	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
Zinc, Total	67.8		mg/kg	4.88	0.286	2	12/27/18 20:00	01/03/19 02:17	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	16		mg/kg	0.98	0.98	1		01/03/19 02:17	NA	107,-	



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-11 Batch: WG1193234-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Antimony, Total	ND		mg/kg	2.00	0.152	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Arsenic, Total	ND		mg/kg	0.400	0.083	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Barium, Total	ND		mg/kg	0.400	0.070	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Beryllium, Total	ND		mg/kg	0.200	0.013	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.400	0.039	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Calcium, Total	ND		mg/kg	4.00	1.40	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Chromium, Total	0.144	J	mg/kg	0.400	0.038	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Cobalt, Total	ND		mg/kg	0.800	0.066	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Copper, Total	ND		mg/kg	0.400	0.103	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Iron, Total	1.26	J	mg/kg	2.00	0.361	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Lead, Total	ND		mg/kg	2.00	0.107	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Magnesium, Total	ND		mg/kg	4.00	0.616	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Manganese, Total	0.088	J	mg/kg	0.400	0.064	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Nickel, Total	ND		mg/kg	1.00	0.097	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Potassium, Total	ND		mg/kg	100	5.76	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Selenium, Total	ND		mg/kg	0.800	0.103	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Silver, Total	ND		mg/kg	0.400	0.113	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Sodium, Total	1.42	J	mg/kg	80.0	1.26	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Thallium, Total	ND		mg/kg	0.800	0.126	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Vanadium, Total	ND		mg/kg	0.400	0.081	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB
Zinc, Total	ND		mg/kg	2.00	0.117	1	12/27/18 20:00	01/02/19 22:50	1,6010D	AB

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-11 Batch: WG1193349-1										
Mercury, Total	ND		mg/kg	0.083	0.018	1	12/28/18 06:00	01/03/19 20:33	1,7471B	EA



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1193234-2 SRM Lot Number: D102-540								
Aluminum, Total	59		-		49-150	-		
Antimony, Total	120		-		1-199	-		
Arsenic, Total	92		-		83-117	-		
Barium, Total	86		-		83-118	-		
Beryllium, Total	84		-		83-116	-		
Cadmium, Total	92		-		83-118	-		
Calcium, Total	90		-		82-118	-		
Chromium, Total	83		-		83-117	-		
Cobalt, Total	90		-		84-116	-		
Copper, Total	86		-		84-116	-		
Iron, Total	75		-		61-139	-		
Lead, Total	86		-		82-118	-		
Magnesium, Total	87		-		76-124	-		
Manganese, Total	82		-		82-118	-		
Nickel, Total	88		-		83-117	-		
Potassium, Total	72		-		70-130	-		
Selenium, Total	92		-		79-121	-		
Silver, Total	80		-		80-120	-		
Sodium, Total	83		-		74-126	-		
Thallium, Total	95		-		81-119	-		
Vanadium, Total	83		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853111

Report Date: 01/04/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1193234-2 SRM Lot Number: D102-540					
Zinc, Total	87	-	81-118	-	
Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1193349-2 SRM Lot Number: D102-540					
Mercury, Total	114	-	65-134	-	

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1193234-3 QC Sample: L1852947-01 Client ID: MS Sample												
Aluminum, Total	8310	182	10300	1090	Q	-	-		75-125	-		20
Antimony, Total	2.75J	45.5	25.4	56	Q	-	-		75-125	-		20
Arsenic, Total	19.5	10.9	32.7	121		-	-		75-125	-		20
Barium, Total	18.4	182	186	92		-	-		75-125	-		20
Beryllium, Total	0.835	4.55	5.00	91		-	-		75-125	-		20
Cadmium, Total	ND	4.64	2.56	55	Q	-	-		75-125	-		20
Calcium, Total	1420	911	2260	92		-	-		75-125	-		20
Chromium, Total	56.8	18.2	79.6	125		-	-		75-125	-		20
Cobalt, Total	4.62	45.5	45.2	89		-	-		75-125	-		20
Copper, Total	10.0	22.8	27.4	76		-	-		75-125	-		20
Iron, Total	53400	91.1	57800	4830	Q	-	-		75-125	-		20
Lead, Total	46.2	46.4	74.9	62	Q	-	-		75-125	-		20
Magnesium, Total	1470	911	2100	69	Q	-	-		75-125	-		20
Manganese, Total	60.4	45.5	96.7	80		-	-		75-125	-		20
Nickel, Total	9.91	45.5	48.8	85		-	-		75-125	-		20
Potassium, Total	2480	911	4520	224	Q	-	-		75-125	-		20
Selenium, Total	0.591J	10.9	10.1	92		-	-		75-125	-		20
Silver, Total	ND	27.3	21.5	79		-	-		75-125	-		20
Sodium, Total	33.9J	911	850	93		-	-		75-125	-		20
Thallium, Total	0.413J	10.9	9.52	87		-	-		75-125	-		20
Vanadium, Total	94.6	45.5	150	122		-	-		75-125	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1193234-3 QC Sample: L1852947-01 Client ID: MS Sample									
Zinc, Total	169	45.5	147	0	Q	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1193349-3 WG1193349-4 QC Sample: L1853088-01 Client ID: MS Sample									
Mercury, Total	13.2	0.148	11.7	0	Q	13.3	68	Q	80-120

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1193234-4 QC Sample: L1852947-01 Client ID: DUP Sample						
Aluminum, Total	8310	8570	mg/kg	3		20
Antimony, Total	2.75J	3.22J	mg/kg	NC		20
Arsenic, Total	19.5	21.6	mg/kg	10		20
Barium, Total	18.4	17.1	mg/kg	7		20
Beryllium, Total	0.835	0.891	mg/kg	6		20
Cadmium, Total	ND	ND	mg/kg	NC		20
Calcium, Total	1420	1330	mg/kg	7		20
Chromium, Total	56.8	59.4	mg/kg	4		20
Cobalt, Total	4.62	4.18	mg/kg	10		20
Copper, Total	10.0	8.96	mg/kg	11		20
Lead, Total	46.2	47.5	mg/kg	3		20
Magnesium, Total	1470	1350	mg/kg	9		20
Manganese, Total	60.4	61.0	mg/kg	1		20
Nickel, Total	9.91	9.44	mg/kg	5		20
Potassium, Total	2480	2490	mg/kg	0		20
Selenium, Total	0.591J	0.836J	mg/kg	NC		20
Silver, Total	ND	ND	mg/kg	NC		20
Sodium, Total	33.9J	31.0J	mg/kg	NC		20
Thallium, Total	0.413J	0.340J	mg/kg	NC		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853111

Report Date: 01/04/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1193234-4 QC Sample: L1852947-01 Client ID: DUP Sample					
Vanadium, Total	94.6	95.1	mg/kg	1	20
Zinc, Total	169	224	mg/kg	28 Q	20
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1193234-4 QC Sample: L1852947-01 Client ID: DUP Sample					
Iron, Total	53400	64400	mg/kg	19	20

INORGANICS & MISCELLANEOUS

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-01
Client ID: RB03_0-2
Sample Location: BRONX, NY

Date Collected: 12/26/18 09:45
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.7		%	0.100	NA	1	-	12/27/18 10:39	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	12/27/18 11:35	12/27/18 15:15	1,9010C/9012B	LH
Chromium, Hexavalent	0.181	J	mg/kg	0.854	0.171	1	12/27/18 17:50	12/28/18 18:50	1,7196A	RM



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-02
Client ID: RB03_2-3
Sample Location: BRONX, NY

Date Collected: 12/26/18 09:50
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.7		%	0.100	NA	1	-	12/27/18 10:39	121,2540G	RI
Cyanide, Total	0.24	J	mg/kg	1.0	0.22	1	12/27/18 11:35	12/27/18 14:46	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.892	0.178	1	12/27/18 17:50	12/28/18 18:50	1,7196A	RM



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-03
Client ID: RB03_10-12
Sample Location: BRONX, NY

Date Collected: 12/26/18 09:55
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.7		%	0.100	NA	1	-	12/27/18 10:39	121,2540G	RI
Cyanide, Total	3.0		mg/kg	1.2	0.25	1	12/27/18 11:35	12/27/18 14:47	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.979	0.196	1	12/27/18 17:50	12/28/18 18:50	1,7196A	RM



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-04
Client ID: RB12_0-2
Sample Location: BRONX, NY

Date Collected: 12/26/18 11:55
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.5		%	0.100	NA	1	-	12/27/18 10:39	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.22	1	12/27/18 11:35	12/27/18 14:48	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.884	0.177	1	12/27/18 17:50	12/28/18 18:50	1,7196A	RM



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-05
Client ID: RB12_8-9
Sample Location: BRONX, NY

Date Collected: 12/26/18 12:00
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.7		%	0.100	NA	1	-	12/27/18 10:39	121,2540G	RI
Cyanide, Total	0.66	J	mg/kg	1.1	0.23	1	12/27/18 11:35	12/27/18 14:49	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.863	0.172	1	12/27/18 17:50	12/28/18 18:50	1,7196A	RM



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-06
Client ID: RB12_9-10
Sample Location: BRONX, NY

Date Collected: 12/26/18 12:05
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.0		%	0.100	NA	1	-	12/27/18 10:39	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.22	1	12/27/18 11:35	12/27/18 14:50	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.909	0.182	1	12/27/18 17:50	12/28/18 18:50	1,7196A	RM



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-07
Client ID: RB12_10-12
Sample Location: BRONX, NY

Date Collected: 12/26/18 12:10
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.7		%	0.100	NA	1	-	12/27/18 10:39	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	12/27/18 11:35	12/27/18 14:51	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.882	0.176	1	12/27/18 17:50	12/28/18 18:50	1,7196A	RM



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-08

Date Collected: 12/26/18 13:25

Client ID: RB02_0-2

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.5		%	0.100	NA	1	-	12/27/18 10:39	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	12/27/18 11:35	12/27/18 14:54	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.856	0.171	1	12/27/18 17:50	12/28/18 18:50	1,7196A	RM



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-09
Client ID: RB02_7-9
Sample Location: BRONX, NY

Date Collected: 12/26/18 13:30
Date Received: 12/26/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	70.2		%	0.100	NA	1	-	12/27/18 10:39	121,2540G	RI
Cyanide, Total	2.3		mg/kg	1.4	0.29	1	12/27/18 11:35	12/27/18 14:56	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	1.14	0.228	1	12/27/18 17:50	12/28/18 18:50	1,7196A	RM



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-10

Date Collected: 12/26/18 13:35

Client ID: RB02_10-12

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.1		%	0.100	NA	1	-	12/27/18 10:39	121,2540G	RI
Cyanide, Total	0.28	J	mg/kg	1.1	0.22	1	12/27/18 11:35	12/27/18 14:57	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.878	0.176	1	12/27/18 17:50	12/28/18 18:50	1,7196A	RM



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

SAMPLE RESULTS

Lab ID: L1853111-11

Date Collected: 12/26/18 13:40

Client ID: RB02_13-15

Date Received: 12/26/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.8		%	0.100	NA	1	-	12/27/18 10:39	121,2540G	RI
Cyanide, Total	1.1		mg/kg	1.1	0.24	1	12/27/18 11:35	12/27/18 14:58	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.978	0.196	1	12/27/18 17:50	12/28/18 18:50	1,7196A	RM



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-06 Batch: WG1193065-1										
Cyanide, Total	ND		mg/kg	0.84	0.18	1	12/27/18 11:35	12/27/18 14:01	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 07-11 Batch: WG1193067-1										
Cyanide, Total	ND		mg/kg	0.84	0.18	1	12/27/18 11:35	12/27/18 14:02	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 01-10 Batch: WG1193257-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	12/27/18 17:50	12/28/18 18:50	1,7196A	RM
General Chemistry - Westborough Lab for sample(s): 11 Batch: WG1193259-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	12/27/18 17:50	12/28/18 18:50	1,7196A	RM

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 Batch: WG1193065-2 WG1193065-3								
Cyanide, Total	66	Q	91		80-120	28		35
General Chemistry - Westborough Lab Associated sample(s): 07-11 Batch: WG1193067-2 WG1193067-3								
Cyanide, Total	65	Q	89		80-120	29		35
General Chemistry - Westborough Lab Associated sample(s): 01-10 Batch: WG1193257-2								
Chromium, Hexavalent	100		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 11 Batch: WG1193259-2								
Chromium, Hexavalent	100		-		80-120	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-06 QC Batch ID: WG1193065-4 WG1193065-5 QC Sample: L1853087-01 Client ID: MS Sample												
Cyanide, Total	ND	12	11	96		10	91		75-125	10		35
General Chemistry - Westborough Lab Associated sample(s): 07-11 QC Batch ID: WG1193067-4 WG1193067-5 QC Sample: L1853134-01 Client ID: MS Sample												
Cyanide, Total	ND	12	11	94		12	100		75-125	9		35
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG1193257-4 QC Sample: L1853111-10 Client ID: RB02_10-12												
Chromium, Hexavalent	ND	1230	1050	85		-	-		75-125	-		20
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG1193259-4 QC Sample: L1853111-11 Client ID: RB02_13-15												
Chromium, Hexavalent	ND	1500	882	59	Q	-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-11 QC Batch ID: WG1193077-1 QC Sample: L1853032-01 Client ID: DUP Sample						
Solids, Total	80.2	82.9	%	3		20
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG1193257-6 QC Sample: L1853111-10 Client ID: RB02_10-12						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG1193259-6 QC Sample: L1853111-11 Client ID: RB02_13-15						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Serial_No:01041915:21
Lab Number: L1853111
Report Date: 01/04/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1853111-01A	Vial MeOH preserved	B	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L1853111-01B	Vial water preserved	B	NA		2.0	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-01C	Vial water preserved	B	NA		2.0	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-01D	Plastic 2oz unpreserved for TS	B	NA		2.0	Y	Absent		TS(7)
L1853111-01E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.0	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853111-01F	Glass 120ml/4oz unpreserved	B	NA		2.0	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-01G	Glass 500ml/16oz unpreserved	B	NA		2.0	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-02A	Vial MeOH preserved	B	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L1853111-02B	Vial water preserved	B	NA		2.0	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-02C	Vial water preserved	B	NA		2.0	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-02D	Plastic 2oz unpreserved for TS	B	NA		2.0	Y	Absent		TS(7)
L1853111-02E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.0	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853111-02F	Glass 120ml/4oz unpreserved	B	NA		2.0	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-02G	Glass 500ml/16oz unpreserved	B	NA		2.0	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

*Values in parentheses indicate holding time in days



Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1853111-03A	Vial MeOH preserved	B	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L1853111-03B	Vial water preserved	B	NA		2.0	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-03C	Vial water preserved	B	NA		2.0	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-03D	Plastic 2oz unpreserved for TS	B	NA		2.0	Y	Absent		TS(7)
L1853111-03E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.0	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853111-03F	Glass 120ml/4oz unpreserved	B	NA		2.0	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-03G	Glass 500ml/16oz unpreserved	B	NA		2.0	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-04A	Vial MeOH preserved	B	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L1853111-04B	Vial water preserved	B	NA		2.0	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-04C	Vial water preserved	B	NA		2.0	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-04D	Plastic 2oz unpreserved for TS	B	NA		2.0	Y	Absent		TS(7)
L1853111-04E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.0	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853111-04F	Glass 120ml/4oz unpreserved	B	NA		2.0	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-04G	Glass 500ml/16oz unpreserved	B	NA		2.0	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-05A	Vial MeOH preserved	A	NA		2.4	Y	Absent		NYTCL-8260HLW(14)
L1853111-05B	Vial water preserved	A	NA		2.4	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-05C	Vial water preserved	A	NA		2.4	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-05D	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Serial_No:01041915:21
Lab Number: L1853111
Report Date: 01/04/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1853111-05E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853111-05F	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-05G	Glass 500ml/16oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-06A	Vial MeOH preserved	B	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L1853111-06B	Vial water preserved	B	NA		2.0	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-06C	Vial water preserved	B	NA		2.0	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-06D	Plastic 2oz unpreserved for TS	B	NA		2.0	Y	Absent		TS(7)
L1853111-06E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.0	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853111-06F	Glass 120ml/4oz unpreserved	B	NA		2.0	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-06G	Glass 500ml/16oz unpreserved	B	NA		2.0	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-07A	Vial MeOH preserved	B	NA		2.0	Y	Absent		NYTCL-8260HLW(14)
L1853111-07B	Vial water preserved	B	NA		2.0	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-07C	Vial water preserved	B	NA		2.0	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-07D	Plastic 2oz unpreserved for TS	B	NA		2.0	Y	Absent		TS(7)
L1853111-07E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		2.0	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853111-07F	Glass 120ml/4oz unpreserved	B	NA		2.0	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

Project Name: GERARD AVE + E. 146TH ST.

Lab Number: L1853111

Project Number: 170487001

Report Date: 01/04/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1853111-07G	Glass 500ml/16oz unpreserved	B	NA		2.0	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-08A	Vial MeOH preserved	A	NA		2.4	Y	Absent		NYTCL-8260HLW(14)
L1853111-08B	Vial water preserved	A	NA		2.4	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-08C	Vial water preserved	A	NA		2.4	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-08D	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L1853111-08E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853111-08F	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-08G	Glass 500ml/16oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-09A	Vial MeOH preserved	A	NA		2.4	Y	Absent		NYTCL-8260HLW(14)
L1853111-09B	Vial water preserved	A	NA		2.4	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-09C	Vial water preserved	A	NA		2.4	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-09D	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L1853111-09E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853111-09F	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-09G	Glass 500ml/16oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-10A	Vial MeOH preserved	A	NA		2.4	Y	Absent		NYTCL-8260HLW(14)
L1853111-10B	Vial water preserved	A	NA		2.4	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-10C	Vial water preserved	A	NA		2.4	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-10D	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Serial_No:01041915:21
Lab Number: L1853111
Report Date: 01/04/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1853111-10E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853111-10F	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-10G	Glass 500ml/16oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-11A	Vial MeOH preserved	A	NA		2.4	Y	Absent		NYTCL-8260HLW(14)
L1853111-11B	Vial water preserved	A	NA		2.4	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-11C	Vial water preserved	A	NA		2.4	Y	Absent	27-DEC-18 03:35	NYTCL-8260HLW(14)
L1853111-11D	Plastic 2oz unpreserved for TS	A	NA		2.4	Y	Absent		TS(7)
L1853111-11E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853111-11F	Glass 120ml/4oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-11G	Glass 500ml/16oz unpreserved	A	NA		2.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853111-12A	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)
L1853111-12B	Vial HCl preserved	A	NA		2.4	Y	Absent		NYTCL-8260(14)

Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853111
Report Date: 01/04/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water


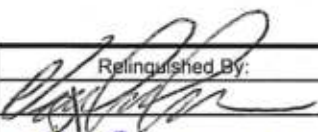
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


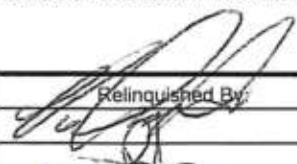
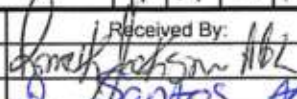


EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 ALPHA <small>ANALYTICAL SERVICES</small>	NEW YORK CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page	Date Rec'd in Lab	ALPHA Job #									
			1 of 2	12/26/18	L1853111									
Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3268	Project Information Project Name: Gerard Ave + E. 146th St. Project Location: Bronx, NY Project # 170487001		Deliverables <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUiS (1 File) <input checked="" type="checkbox"/> EQUiS (4 File) <input type="checkbox"/> Other										
Client Information Client: Langan Engineering Address: 21 Penn Plaza, 360 W. 31st St 8th Fl, NY, NY 10001-2727 Phone: (212) 479-5400 Fax: (212) 479-5444 Email: jleung@langan.com		(Use Project name as Project #) <input type="checkbox"/> Project Manager: Julia Leung ALPHAQuote #: 7013 Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge										
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: Please also cc: datamanagement@langan.com and vzuluaga@langan.com Please specify Metals or TAL.		ANALYSIS		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:										
				Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Lab to do (Please Specify below)										
				Sample Specific Comments										
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Part 375/TCL VOCs	Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hex Chromium	Total Cyanide	Total Bottles
		Date	Time											
53111	-01 RB03-0-2	12/26/18	09:45	SOIL	VZ	X	X	X	X	X	X	X	X	27
	-02 RB03-2-3		09:50											
	-03 RB03-10-12		09:55											
	-04 RB12-0-2		11:55											
	-05 RB12-8-9		12:00											
	-06 RB12-9-10		12:05											
	-07 RB12-10-12		12:10											
	-08 RB02-0-2		13:25											
	-09 RB02-7-4		13:30											
	-10 RB02-10-12		13:35											
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type V A A A A A A A		Preservative F A A A A A A A		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)				
		Relinquished By:		Date/Time		Received By:		Date/Time						
				12/26/18 1522		Renee Jackson ML		12/26 1522						
		D. Santos AEL		12/26/18 1647		Santos AEL		12/26/18 1900						
		D. Santos AEL		12/26/18 2235		Santos AEL		12/26/18 2235						

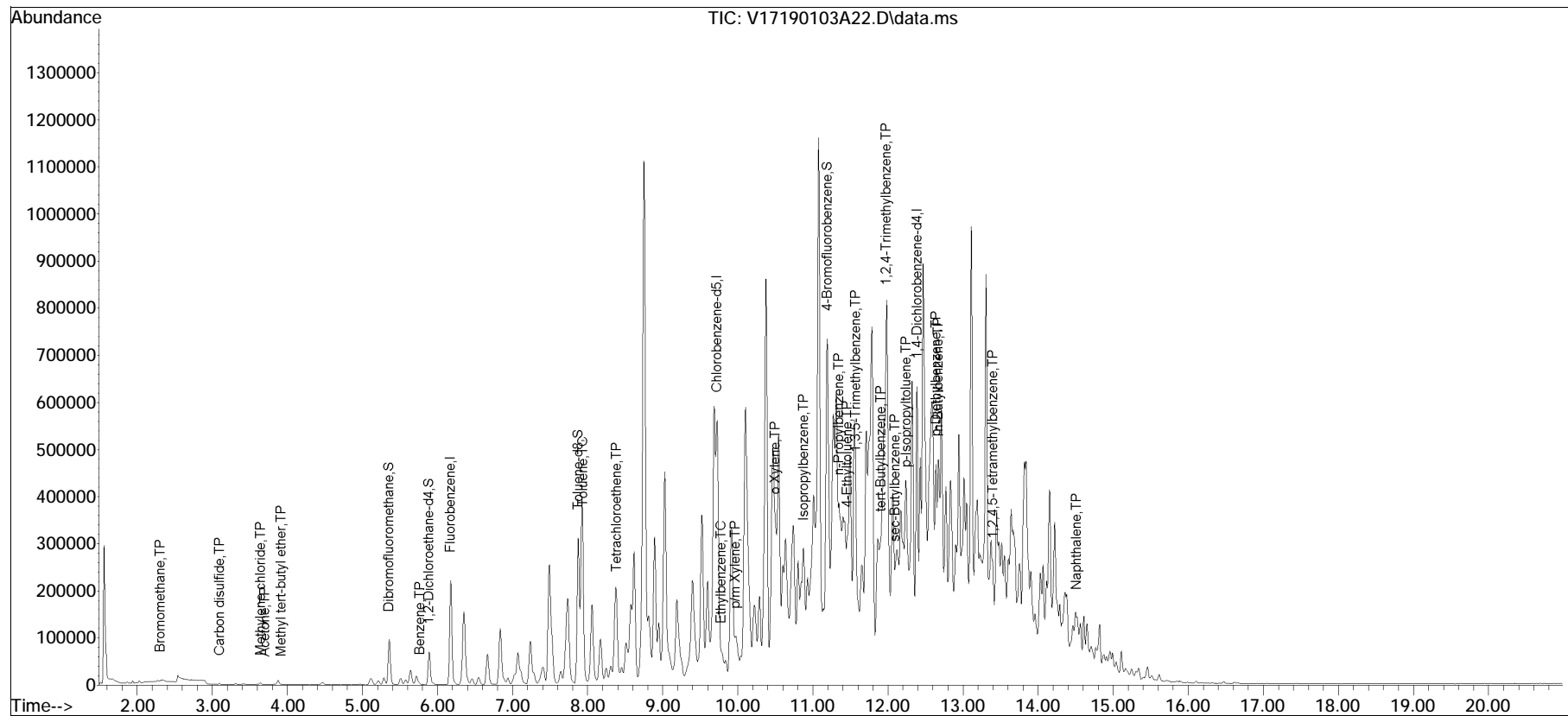
 ALPHA ANALYTICAL <small>ANALYTICAL LABORATORY</small>	NEW YORK CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 2 of 2	Date Rec'd in Lab 12/26/18	ALPHA Job # 11853111								
		Project Information Project Name: Gerard Ave + E. 146th St. Project Location: Bronx, NY Project # 170487001	Deliverables <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other	Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #									
Client Information Client: Langan Engineering Address: 21 Penn Plaza, 360 W. 31st St 8th Fl., NY, NY 10001-2727 Phone: (212) 479-5400 Fax: (212) 479-5444 Email: jleung@langan.com		Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge									
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: Please also cc: datamanagement@langan.com and vzuluaga@langan.com Please specify Metals or TAL.		ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Lab to do (Please Specify below)									
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date Time	Sample Matrix	Sampler's Initials	Part 375/TCL VOCs	Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hex Chromium	Total Cyanide	Total Bottles
53111	-11 AB02-13-15	12/26/18 1340	SOIL	VZ	X	X	X	X	X	X	X	X	7
	-12 SOTPO2-122618	12/26/18 -	AD	-	X								2
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type V A A A A A A A		Preservative B/F A A A A A A A		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)			
Form No: 01-25 HC (rev. 30-Sept-2013)		Relinquished By:  Date/Time: 12/26/18 1522		Received By:  Date/Time: 12/26/18 1900		Relinquished By:  Date/Time: 12/26/18 2230		Received By:  Date/Time: 12/26/18 2230					

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA117\2019\190103A\
 Data File : V17190103A22.D
 Acq On : 04 Jan 2019 01:32
 Operator : VOA117:MV
 Sample : 11853111-01,31H,5.15,5,0.100,,a
 Misc : WG1194605,ICAL15123
 ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 04 06:07:57 2019
 Quant Method : I:\VOLATILES\VOA117\2019\190103A\V117_181010N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Oct 12 09:26:09 2018
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90103A\V17190103A02.D•

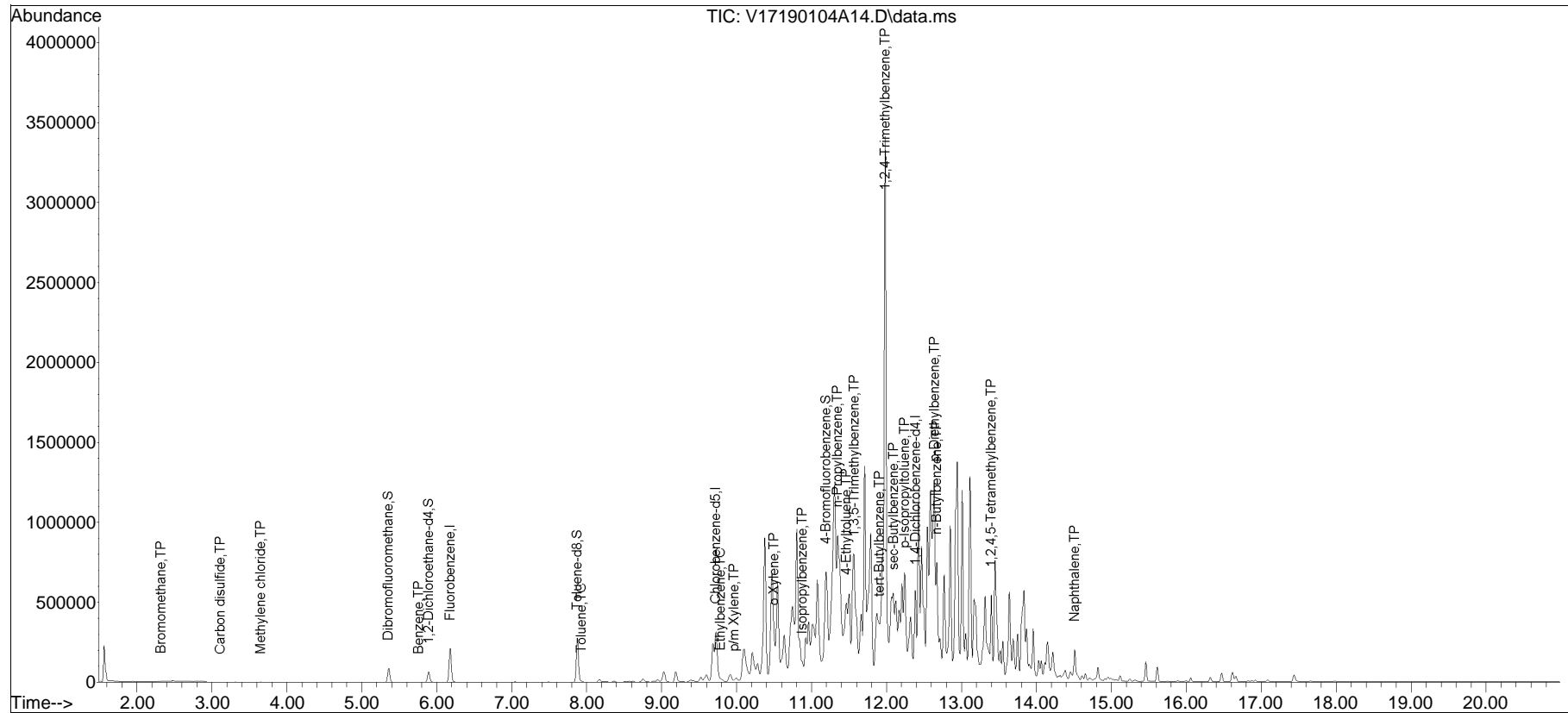


Quantitation Report (QT Reviewed)

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 Sample : 11853111-05D,31H,4.56,5,0.050,,a
 Misc : WG1194817,ICAL15123
 ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 04 12:22:44 2019
 Quant Method : I:\VOLATILES\VOA117\2019\190104A\V117_181010N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Oct 12 09:26:09 2018
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90104A\V17190104A01.D•





ANALYTICAL REPORT

Lab Number:	L1853234
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	GERARD AVE. + E. 146TH ST.
Project Number:	170487001
Report Date:	01/07/19

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1853234-01	RB01_0-2	SOIL	BRONX, NY	12/27/18 09:30	12/27/18
L1853234-02	RB01_14-15	SOIL	BRONX, NY	12/27/18 09:40	12/27/18
L1853234-03	RB01_25-27	SOIL	BRONX, NY	12/27/18 09:45	12/27/18
L1853234-04	RB08_0-2	SOIL	BRONX, NY	12/27/18 12:45	12/27/18
L1853234-05	RB08_10-12	SOIL	BRONX, NY	12/27/18 12:50	12/27/18
L1853234-06	RB08_12-14	SOIL	BRONX, NY	12/27/18 12:55	12/27/18
L1853234-07	RB08_14-16	SOIL	BRONX, NY	12/27/18 13:00	12/27/18
L1853234-08	SODUP02_122718	SOIL	BRONX, NY	12/27/18 00:00	12/27/18
L1853234-09	RB01_9-11	SOIL	BRONX, NY	12/27/18 09:35	12/27/18
L1853234-10	SOTB03_122718	WATER	BRONX, NY	12/27/18 00:00	12/27/18
L1853234-11	SOFB02_122718	WATER	BRONX, NY	12/27/18 10:45	12/27/18

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The analyses performed were specified by the client.

Volatile Organics

L1853234-01: The internal standard (IS) response for 1,4-dichlorobenzene-d4 (43%) was below the acceptance criteria; however, re-analysis achieved similar results: 1,4-dichlorobenzene-d4 (39%). The results of both analyses are reported.

L1853234-02: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (146%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report. The results are not considered to be biased.

Semivolatile Organics

L1853234-09: The sample has elevated detection limits due to the dilution required by the sample matrix. The WG1193399-6/-7 MS/MSD recoveries, performed on L1853234-03, are below the acceptance criteria for 2,4-dinitrophenol (0%/0%) and benzoic acid (0%/0%) due to the concentration of these compounds falling below the reported detection limit.

Semivolatile Organics by SIM

L1853234-11 was extracted with the method required holding time exceeded.

The WG1194717-1 Method Blank, associated with L1853234-11, has a concentration above the reporting limit for Naphthalene. Since the sample was non-detect to the RL for this target analyte, no further actions were taken. The results of the original analysis are reported.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Case Narrative (continued)

Pesticides

L1853234-02 and -09: The sample has elevated detection limits due to the dilution required by the sample matrix.

L1853234-02: The surrogate recoveries are outside the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (7680%) and decachlorobiphenyl (242%); however, the sample was not re-extracted due to coelution with obvious interferences.

L1853234-09: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (0%) and decachlorobiphenyl (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Total Metals

L1853234-01 through -09: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1193639-3/-4 MS/MSD recoveries for aluminum (566%/304%), iron (1510%/836%) and manganese (MSD at 56%), performed on L1853234-03, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1193639-3/-4 MS/MSD recoveries, performed on L1853234-03, are outside the acceptance criteria for calcium (59%/43%), copper (MSD at 71%), lead (68%/64%), potassium (MS at 126%) and zinc (MSD at 72%). A post digestion spike was performed and was within acceptance criteria.

Cyanide, Total

The WG1193512-3 LCSD recovery (73%), associated with L1853234-01 through -09, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

Hexavalent Chromium

The WG1193635-4/-5 Insoluble MS/MSD recoveries (14%/3%), performed on L1853234-03, are below the acceptance criteria. The Soluble MS recovery (17%) was also below criteria. This has been attributed to matrix

Project Name: GERARD AVE. + E. 146TH ST.
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Case Narrative (continued)

interference. A post-spike was performed with an acceptable recovery 104%.

The WG1193635-4/-5 MS/MSD RPD (129%), performed on L1853234-03, is above the acceptance criteria.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 01/07/19

ORGANICS

VOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-01
 Client ID: RB01_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:30
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 15:38
 Analyst: AD
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	12	5.3	1
1,1-Dichloroethane	ND		ug/kg	2.3	0.34	1
Chloroform	ND		ug/kg	3.5	0.33	1
Carbon tetrachloride	ND		ug/kg	2.3	0.54	1
1,2-Dichloropropane	ND		ug/kg	2.3	0.29	1
Dibromochloromethane	ND		ug/kg	2.3	0.33	1
1,1,2-Trichloroethane	ND		ug/kg	2.3	0.62	1
Tetrachloroethene	19		ug/kg	1.2	0.46	1
Chlorobenzene	ND		ug/kg	1.2	0.30	1
Trichlorofluoromethane	ND		ug/kg	9.3	1.6	1
1,2-Dichloroethane	ND		ug/kg	2.3	0.60	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.39	1
Bromodichloromethane	ND		ug/kg	1.2	0.25	1
trans-1,3-Dichloropropene	ND		ug/kg	2.3	0.64	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.37	1
1,3-Dichloropropene, Total	ND		ug/kg	1.2	0.37	1
1,1-Dichloropropene	ND		ug/kg	1.2	0.37	1
Bromoform	ND		ug/kg	9.3	0.57	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.39	1
Benzene	0.85	J	ug/kg	1.2	0.39	1
Toluene	1.6	J	ug/kg	2.3	1.3	1
Ethylbenzene	0.48	J	ug/kg	2.3	0.33	1
Chloromethane	ND		ug/kg	9.3	2.2	1
Bromomethane	ND		ug/kg	4.6	1.4	1
Vinyl chloride	ND		ug/kg	2.3	0.78	1
Chloroethane	ND		ug/kg	4.6	1.0	1
1,1-Dichloroethene	ND		ug/kg	2.3	0.55	1
trans-1,2-Dichloroethene	ND		ug/kg	3.5	0.32	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-01

Date Collected: 12/27/18 09:30

Client ID: RB01_0-2

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	1.2	0.32	1
1,2-Dichlorobenzene	ND		ug/kg	4.6	0.34	1
1,3-Dichlorobenzene	ND		ug/kg	4.6	0.34	1
1,4-Dichlorobenzene	ND		ug/kg	4.6	0.40	1
Methyl tert butyl ether	ND		ug/kg	4.6	0.47	1
p/m-Xylene	1.5	J	ug/kg	4.6	1.3	1
o-Xylene	ND		ug/kg	2.3	0.68	1
Xylenes, Total	1.5	J	ug/kg	2.3	0.68	1
cis-1,2-Dichloroethene	ND		ug/kg	2.3	0.41	1
1,2-Dichloroethene, Total	ND		ug/kg	2.3	0.32	1
Dibromomethane	ND		ug/kg	4.6	0.55	1
Styrene	ND		ug/kg	2.3	0.46	1
Dichlorodifluoromethane	ND		ug/kg	23	2.1	1
Acetone	15	J	ug/kg	23	11.	1
Carbon disulfide	ND		ug/kg	23	10.	1
2-Butanone	ND		ug/kg	23	5.2	1
Vinyl acetate	ND		ug/kg	23	5.0	1
4-Methyl-2-pentanone	ND		ug/kg	23	3.0	1
1,2,3-Trichloropropane	ND		ug/kg	4.6	0.30	1
2-Hexanone	ND		ug/kg	23	2.7	1
Bromochloromethane	ND		ug/kg	4.6	0.48	1
2,2-Dichloropropane	ND		ug/kg	4.6	0.47	1
1,2-Dibromoethane	ND		ug/kg	2.3	0.65	1
1,3-Dichloropropane	ND		ug/kg	4.6	0.39	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.31	1
Bromobenzene	ND		ug/kg	4.6	0.34	1
n-Butylbenzene	ND		ug/kg	2.3	0.39	1
sec-Butylbenzene	ND		ug/kg	2.3	0.34	1
tert-Butylbenzene	ND		ug/kg	4.6	0.27	1
o-Chlorotoluene	ND		ug/kg	4.6	0.44	1
p-Chlorotoluene	ND		ug/kg	4.6	0.25	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	7.0	2.3	1
Hexachlorobutadiene	ND		ug/kg	9.3	0.39	1
Isopropylbenzene	ND		ug/kg	2.3	0.25	1
p-Isopropyltoluene	ND		ug/kg	2.3	0.25	1
Naphthalene	ND		ug/kg	9.3	1.5	1
Acrylonitrile	ND		ug/kg	9.3	2.7	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-01
Client ID: RB01_0-2
Sample Location: BRONX, NY

Date Collected: 12/27/18 09:30
Date Received: 12/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	2.3	0.40	1
1,2,3-Trichlorobenzene	ND		ug/kg	4.6	0.75	1
1,2,4-Trichlorobenzene	ND		ug/kg	4.6	0.63	1
1,3,5-Trimethylbenzene	ND		ug/kg	4.6	0.45	1
1,2,4-Trimethylbenzene	ND		ug/kg	4.6	0.78	1
1,4-Dioxane	ND		ug/kg	230	82.	1
p-Diethylbenzene	ND		ug/kg	4.6	0.41	1
p-Ethyltoluene	ND		ug/kg	4.6	0.89	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.6	0.44	1
Ethyl ether	ND		ug/kg	4.6	0.79	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	12	3.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	122		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-01 R
 Client ID: RB01_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:30
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 22:16
 Analyst: MV
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	7.8	3.6	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.23	1
Chloroform	0.50	J	ug/kg	2.3	0.22	1
Carbon tetrachloride	ND		ug/kg	1.6	0.36	1
1,2-Dichloropropane	ND		ug/kg	1.6	0.20	1
Dibromochloromethane	ND		ug/kg	1.6	0.22	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.42	1
Tetrachloroethene	42		ug/kg	0.78	0.31	1
Chlorobenzene	ND		ug/kg	0.78	0.20	1
Trichlorofluoromethane	ND		ug/kg	6.3	1.1	1
1,2-Dichloroethane	ND		ug/kg	1.6	0.40	1
1,1,1-Trichloroethane	ND		ug/kg	0.78	0.26	1
Bromodichloromethane	ND		ug/kg	0.78	0.17	1
trans-1,3-Dichloropropene	ND		ug/kg	1.6	0.43	1
cis-1,3-Dichloropropene	ND		ug/kg	0.78	0.25	1
1,3-Dichloropropene, Total	ND		ug/kg	0.78	0.25	1
1,1-Dichloropropene	ND		ug/kg	0.78	0.25	1
Bromoform	ND		ug/kg	6.3	0.38	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.78	0.26	1
Benzene	1.2		ug/kg	0.78	0.26	1
Toluene	2.9		ug/kg	1.6	0.85	1
Ethylbenzene	0.94	J	ug/kg	1.6	0.22	1
Chloromethane	ND		ug/kg	6.3	1.4	1
Bromomethane	ND		ug/kg	3.1	0.91	1
Vinyl chloride	ND		ug/kg	1.6	0.52	1
Chloroethane	ND		ug/kg	3.1	0.71	1
1,1-Dichloroethene	ND		ug/kg	1.6	0.37	1
trans-1,2-Dichloroethene	ND		ug/kg	2.3	0.21	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-01 R

Date Collected: 12/27/18 09:30

Client ID: RB01_0-2

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.78	0.21	1
1,2-Dichlorobenzene	ND		ug/kg	3.1	0.22	1
1,3-Dichlorobenzene	ND		ug/kg	3.1	0.23	1
1,4-Dichlorobenzene	ND		ug/kg	3.1	0.27	1
Methyl tert butyl ether	ND		ug/kg	3.1	0.31	1
p/m-Xylene	3.2		ug/kg	3.1	0.88	1
o-Xylene	1.1	J	ug/kg	1.6	0.46	1
Xylenes, Total	4.3	J	ug/kg	1.6	0.46	1
cis-1,2-Dichloroethene	ND		ug/kg	1.6	0.27	1
1,2-Dichloroethene, Total	ND		ug/kg	1.6	0.21	1
Dibromomethane	ND		ug/kg	3.1	0.37	1
Styrene	ND		ug/kg	1.6	0.31	1
Dichlorodifluoromethane	ND		ug/kg	16	1.4	1
Acetone	14	J	ug/kg	16	7.5	1
Carbon disulfide	ND		ug/kg	16	7.1	1
2-Butanone	ND		ug/kg	16	3.5	1
Vinyl acetate	ND		ug/kg	16	3.4	1
4-Methyl-2-pentanone	ND		ug/kg	16	2.0	1
1,2,3-Trichloropropane	ND		ug/kg	3.1	0.20	1
2-Hexanone	ND		ug/kg	16	1.8	1
Bromochloromethane	ND		ug/kg	3.1	0.32	1
2,2-Dichloropropane	ND		ug/kg	3.1	0.32	1
1,2-Dibromoethane	ND		ug/kg	1.6	0.44	1
1,3-Dichloropropane	ND		ug/kg	3.1	0.26	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.78	0.21	1
Bromobenzene	ND		ug/kg	3.1	0.23	1
n-Butylbenzene	ND		ug/kg	1.6	0.26	1
sec-Butylbenzene	ND		ug/kg	1.6	0.23	1
tert-Butylbenzene	ND		ug/kg	3.1	0.18	1
o-Chlorotoluene	ND		ug/kg	3.1	0.30	1
p-Chlorotoluene	ND		ug/kg	3.1	0.17	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.7	1.6	1
Hexachlorobutadiene	ND		ug/kg	6.3	0.26	1
Isopropylbenzene	ND		ug/kg	1.6	0.17	1
p-Isopropyltoluene	ND		ug/kg	1.6	0.17	1
Naphthalene	2.4	J	ug/kg	6.3	1.0	1
Acrylonitrile	ND		ug/kg	6.3	1.8	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-01 R

Date Collected: 12/27/18 09:30

Client ID: RB01_0-2

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.6	0.27	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.1	0.50	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.1	0.42	1
1,3,5-Trimethylbenzene	3.1		ug/kg	3.1	0.30	1
1,2,4-Trimethylbenzene	4.3		ug/kg	3.1	0.52	1
1,4-Dioxane	ND		ug/kg	160	55.	1
p-Diethylbenzene	2.4	J	ug/kg	3.1	0.28	1
p-Ethyltoluene	2.4	J	ug/kg	3.1	0.60	1
1,2,4,5-Tetramethylbenzene	0.48	J	ug/kg	3.1	0.30	1
Ethyl ether	ND		ug/kg	3.1	0.53	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.8	2.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	124		70-130
4-Bromofluorobenzene	121		70-130
Dibromofluoromethane	109		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-02
 Client ID: RB01_14-15
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:40
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/04/19 14:59
 Analyst: MKS
 Percent Solids: 63%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	700	320	1
1,1-Dichloroethane	ND		ug/kg	140	20.	1
Chloroform	ND		ug/kg	210	20.	1
Carbon tetrachloride	ND		ug/kg	140	32.	1
1,2-Dichloropropane	ND		ug/kg	140	18.	1
Dibromochloromethane	ND		ug/kg	140	20.	1
1,1,2-Trichloroethane	ND		ug/kg	140	38.	1
Tetrachloroethene	ND		ug/kg	70	28.	1
Chlorobenzene	ND		ug/kg	70	18.	1
Trichlorofluoromethane	ND		ug/kg	560	98.	1
1,2-Dichloroethane	ND		ug/kg	140	36.	1
1,1,1-Trichloroethane	ND		ug/kg	70	24.	1
Bromodichloromethane	ND		ug/kg	70	15.	1
trans-1,3-Dichloropropene	ND		ug/kg	140	38.	1
cis-1,3-Dichloropropene	ND		ug/kg	70	22.	1
1,3-Dichloropropene, Total	ND		ug/kg	70	22.	1
1,1-Dichloropropene	ND		ug/kg	70	22.	1
Bromoform	ND		ug/kg	560	35.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	70	23.	1
Benzene	180		ug/kg	70	23.	1
Toluene	170		ug/kg	140	76.	1
Ethylbenzene	80	J	ug/kg	140	20.	1
Chloromethane	ND		ug/kg	560	130	1
Bromomethane	ND		ug/kg	280	82.	1
Vinyl chloride	ND		ug/kg	140	47.	1
Chloroethane	ND		ug/kg	280	64.	1
1,1-Dichloroethene	ND		ug/kg	140	34.	1
trans-1,2-Dichloroethene	ND		ug/kg	210	19.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-02

Date Collected: 12/27/18 09:40

Client ID: RB01_14-15

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	70	19.	1
1,2-Dichlorobenzene	ND		ug/kg	280	20.	1
1,3-Dichlorobenzene	ND		ug/kg	280	21.	1
1,4-Dichlorobenzene	ND		ug/kg	280	24.	1
Methyl tert butyl ether	ND		ug/kg	280	28.	1
p/m-Xylene	140	J	ug/kg	280	79.	1
o-Xylene	50	J	ug/kg	140	41.	1
Xylenes, Total	190	J	ug/kg	140	41.	1
cis-1,2-Dichloroethene	ND		ug/kg	140	25.	1
1,2-Dichloroethene, Total	ND		ug/kg	140	19.	1
Dibromomethane	ND		ug/kg	280	34.	1
Styrene	52	J	ug/kg	140	28.	1
Dichlorodifluoromethane	ND		ug/kg	1400	130	1
Acetone	2200		ug/kg	1400	680	1
Carbon disulfide	ND		ug/kg	1400	640	1
2-Butanone	350	J	ug/kg	1400	310	1
Vinyl acetate	ND		ug/kg	1400	300	1
4-Methyl-2-pentanone	ND		ug/kg	1400	180	1
1,2,3-Trichloropropane	ND		ug/kg	280	18.	1
2-Hexanone	ND		ug/kg	1400	170	1
Bromochloromethane	ND		ug/kg	280	29.	1
2,2-Dichloropropane	ND		ug/kg	280	28.	1
1,2-Dibromoethane	ND		ug/kg	140	39.	1
1,3-Dichloropropane	ND		ug/kg	280	24.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	70	18.	1
Bromobenzene	ND		ug/kg	280	20.	1
n-Butylbenzene	360		ug/kg	140	24.	1
sec-Butylbenzene	1000		ug/kg	140	20.	1
tert-Butylbenzene	ND		ug/kg	280	17.	1
o-Chlorotoluene	ND		ug/kg	280	27.	1
p-Chlorotoluene	ND		ug/kg	280	15.	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	420	140	1
Hexachlorobutadiene	ND		ug/kg	560	24.	1
Isopropylbenzene	440		ug/kg	140	15.	1
p-Isopropyltoluene	100	J	ug/kg	140	15.	1
Naphthalene	1400		ug/kg	560	92.	1
Acrylonitrile	ND		ug/kg	560	160	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-02
 Client ID: RB01_14-15
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:40
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	ND		ug/kg	140	24.	1
1,2,3-Trichlorobenzene	ND		ug/kg	280	45.	1
1,2,4-Trichlorobenzene	ND		ug/kg	280	38.	1
1,3,5-Trimethylbenzene	ND		ug/kg	280	27.	1
1,2,4-Trimethylbenzene	67	J	ug/kg	280	47.	1
1,4-Dioxane	ND		ug/kg	14000	4900	1
p-Diethylbenzene	540		ug/kg	280	25.	1
p-Ethyltoluene	1200		ug/kg	280	54.	1
1,2,4,5-Tetramethylbenzene	4400		ug/kg	280	27.	1
Ethyl ether	ND		ug/kg	280	48.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	700	200	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	146	Q	70-130
Dibromofluoromethane	94		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-03
 Client ID: RB01_25-27
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/02/19 16:03
 Analyst: AD
 Percent Solids: 60%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	8.6	3.9	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.25	1
Chloroform	ND		ug/kg	2.6	0.24	1
Carbon tetrachloride	ND		ug/kg	1.7	0.40	1
1,2-Dichloropropane	ND		ug/kg	1.7	0.22	1
Dibromochloromethane	ND		ug/kg	1.7	0.24	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.46	1
Tetrachloroethene	ND		ug/kg	0.86	0.34	1
Chlorobenzene	ND		ug/kg	0.86	0.22	1
Trichlorofluoromethane	ND		ug/kg	6.9	1.2	1
1,2-Dichloroethane	ND		ug/kg	1.7	0.44	1
1,1,1-Trichloroethane	ND		ug/kg	0.86	0.29	1
Bromodichloromethane	ND		ug/kg	0.86	0.19	1
trans-1,3-Dichloropropene	ND		ug/kg	1.7	0.47	1
cis-1,3-Dichloropropene	ND		ug/kg	0.86	0.27	1
1,3-Dichloropropene, Total	ND		ug/kg	0.86	0.27	1
1,1-Dichloropropene	ND		ug/kg	0.86	0.27	1
Bromoform	ND		ug/kg	6.9	0.42	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.86	0.28	1
Benzene	ND		ug/kg	0.86	0.28	1
Toluene	ND		ug/kg	1.7	0.93	1
Ethylbenzene	ND		ug/kg	1.7	0.24	1
Chloromethane	ND		ug/kg	6.9	1.6	1
Bromomethane	ND		ug/kg	3.4	1.0	1
Vinyl chloride	ND		ug/kg	1.7	0.58	1
Chloroethane	ND		ug/kg	3.4	0.78	1
1,1-Dichloroethene	ND		ug/kg	1.7	0.41	1
trans-1,2-Dichloroethene	ND		ug/kg	2.6	0.24	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-03

Date Collected: 12/27/18 09:45

Client ID: RB01_25-27

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.86	0.24	1
1,2-Dichlorobenzene	ND		ug/kg	3.4	0.25	1
1,3-Dichlorobenzene	ND		ug/kg	3.4	0.25	1
1,4-Dichlorobenzene	ND		ug/kg	3.4	0.29	1
Methyl tert butyl ether	ND		ug/kg	3.4	0.34	1
p/m-Xylene	ND		ug/kg	3.4	0.96	1
o-Xylene	ND		ug/kg	1.7	0.50	1
Xylenes, Total	ND		ug/kg	1.7	0.50	1
cis-1,2-Dichloroethene	ND		ug/kg	1.7	0.30	1
1,2-Dichloroethene, Total	ND		ug/kg	1.7	0.24	1
Dibromomethane	ND		ug/kg	3.4	0.41	1
Styrene	ND		ug/kg	1.7	0.34	1
Dichlorodifluoromethane	ND		ug/kg	17	1.6	1
Acetone	70		ug/kg	17	8.3	1
Carbon disulfide	15	J	ug/kg	17	7.8	1
2-Butanone	9.4	J	ug/kg	17	3.8	1
Vinyl acetate	ND		ug/kg	17	3.7	1
4-Methyl-2-pentanone	ND		ug/kg	17	2.2	1
1,2,3-Trichloropropane	ND		ug/kg	3.4	0.22	1
2-Hexanone	ND		ug/kg	17	2.0	1
Bromochloromethane	ND		ug/kg	3.4	0.35	1
2,2-Dichloropropane	ND		ug/kg	3.4	0.35	1
1,2-Dibromoethane	ND		ug/kg	1.7	0.48	1
1,3-Dichloropropane	ND		ug/kg	3.4	0.29	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.86	0.23	1
Bromobenzene	ND		ug/kg	3.4	0.25	1
n-Butylbenzene	ND		ug/kg	1.7	0.29	1
sec-Butylbenzene	ND		ug/kg	1.7	0.25	1
tert-Butylbenzene	ND		ug/kg	3.4	0.20	1
o-Chlorotoluene	ND		ug/kg	3.4	0.33	1
p-Chlorotoluene	ND		ug/kg	3.4	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.2	1.7	1
Hexachlorobutadiene	ND		ug/kg	6.9	0.29	1
Isopropylbenzene	ND		ug/kg	1.7	0.19	1
p-Isopropyltoluene	ND		ug/kg	1.7	0.19	1
Naphthalene	ND		ug/kg	6.9	1.1	1
Acrylonitrile	ND		ug/kg	6.9	2.0	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-03
 Client ID: RB01_25-27
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.7	0.29	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.4	0.55	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.4	0.47	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.4	0.33	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.4	0.57	1
1,4-Dioxane	ND		ug/kg	170	60.	1
p-Diethylbenzene	ND		ug/kg	3.4	0.30	1
p-Ethyltoluene	ND		ug/kg	3.4	0.66	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.4	0.33	1
Ethyl ether	ND		ug/kg	3.4	0.59	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.6	2.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	114		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-04
 Client ID: RB08_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/05/19 17:29
 Analyst: AD
 Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.7	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	0.41	J	ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.1	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	ND		ug/kg	0.57	0.22	1
Chlorobenzene	ND		ug/kg	0.57	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.6	0.79	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.29	1
1,1,1-Trichloroethane	ND		ug/kg	0.57	0.19	1
Bromodichloromethane	ND		ug/kg	0.57	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.31	1
cis-1,3-Dichloropropene	ND		ug/kg	0.57	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.57	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.57	0.18	1
Bromoform	ND		ug/kg	4.6	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.57	0.19	1
Benzene	ND		ug/kg	0.57	0.19	1
Toluene	ND		ug/kg	1.1	0.62	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.6	1.1	1
Bromomethane	ND		ug/kg	2.3	0.66	1
Vinyl chloride	ND		ug/kg	1.1	0.38	1
Chloroethane	ND		ug/kg	2.3	0.52	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-04

Date Collected: 12/27/18 12:45

Client ID: RB08_0-2

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.57	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.64	1
o-Xylene	ND		ug/kg	1.1	0.33	1
Xylenes, Total	ND		ug/kg	1.1	0.33	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	2.3	0.27	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	ND		ug/kg	11	5.5	1
Carbon disulfide	ND		ug/kg	11	5.2	1
2-Butanone	ND		ug/kg	11	2.5	1
Vinyl acetate	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.3	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.3	0.23	1
2,2-Dichloropropane	ND		ug/kg	2.3	0.23	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.32	1
1,3-Dichloropropane	ND		ug/kg	2.3	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.57	0.15	1
Bromobenzene	ND		ug/kg	2.3	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.19	1
sec-Butylbenzene	ND		ug/kg	1.1	0.17	1
tert-Butylbenzene	ND		ug/kg	2.3	0.13	1
o-Chlorotoluene	ND		ug/kg	2.3	0.22	1
p-Chlorotoluene	ND		ug/kg	2.3	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.4	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.6	0.19	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.6	0.74	1
Acrylonitrile	ND		ug/kg	4.6	1.3	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-04
 Client ID: RB08_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.37	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.31	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.38	1
1,4-Dioxane	ND		ug/kg	110	40.	1
p-Diethylbenzene	ND		ug/kg	2.3	0.20	1
p-Ethyltoluene	ND		ug/kg	2.3	0.44	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.3	0.22	1
Ethyl ether	ND		ug/kg	2.3	0.39	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.7	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	112		70-130
Dibromofluoromethane	97		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-05
 Client ID: RB08_10-12
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:50
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/03/19 00:07
 Analyst: MV
 Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.6	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.1	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	0.25	J	ug/kg	0.56	0.22	1
Chlorobenzene	ND		ug/kg	0.56	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.5	0.78	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.29	1
1,1,1-Trichloroethane	ND		ug/kg	0.56	0.19	1
Bromodichloromethane	ND		ug/kg	0.56	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.31	1
cis-1,3-Dichloropropene	ND		ug/kg	0.56	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.56	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.56	0.18	1
Bromoform	ND		ug/kg	4.5	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.56	0.19	1
Benzene	0.23	J	ug/kg	0.56	0.19	1
Toluene	ND		ug/kg	1.1	0.61	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.5	1.0	1
Bromomethane	ND		ug/kg	2.2	0.65	1
Vinyl chloride	ND		ug/kg	1.1	0.38	1
Chloroethane	ND		ug/kg	2.2	0.51	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.15	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-05

Date Collected: 12/27/18 12:50

Client ID: RB08_10-12

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.56	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.23	1
p/m-Xylene	ND		ug/kg	2.2	0.63	1
o-Xylene	ND		ug/kg	1.1	0.33	1
Xylenes, Total	ND		ug/kg	1.1	0.33	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.2	0.27	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	ND		ug/kg	11	5.4	1
Carbon disulfide	ND		ug/kg	11	5.1	1
2-Butanone	ND		ug/kg	11	2.5	1
Vinyl acetate	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.2	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.23	1
2,2-Dichloropropane	ND		ug/kg	2.2	0.23	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.31	1
1,3-Dichloropropane	ND		ug/kg	2.2	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.56	0.15	1
Bromobenzene	ND		ug/kg	2.2	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.19	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.2	0.13	1
o-Chlorotoluene	ND		ug/kg	2.2	0.21	1
p-Chlorotoluene	ND		ug/kg	2.2	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.4	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.5	0.19	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.5	0.73	1
Acrylonitrile	ND		ug/kg	4.5	1.3	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-05
 Client ID: RB08_10-12
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:50
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.36	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.31	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.38	1
1,4-Dioxane	ND		ug/kg	110	40.	1
p-Diethylbenzene	ND		ug/kg	2.2	0.20	1
p-Ethyltoluene	ND		ug/kg	2.2	0.43	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.2	0.21	1
Ethyl ether	ND		ug/kg	2.2	0.38	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.6	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	107		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-06
 Client ID: RB08_12-14
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:55
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/04/19 15:50
 Analyst: MKS
 Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.8	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.96	0.14	1
Chloroform	0.63	J	ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.96	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.96	0.12	1
Dibromochloromethane	ND		ug/kg	0.96	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.96	0.26	1
Tetrachloroethene	ND		ug/kg	0.48	0.19	1
Chlorobenzene	ND		ug/kg	0.48	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.8	0.67	1
1,2-Dichloroethane	ND		ug/kg	0.96	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	0.48	0.16	1
Bromodichloromethane	ND		ug/kg	0.48	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.96	0.26	1
cis-1,3-Dichloropropene	ND		ug/kg	0.48	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.48	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.48	0.15	1
Bromoform	ND		ug/kg	3.8	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.48	0.16	1
Benzene	0.16	J	ug/kg	0.48	0.16	1
Toluene	ND		ug/kg	0.96	0.52	1
Ethylbenzene	ND		ug/kg	0.96	0.14	1
Chloromethane	ND		ug/kg	3.8	0.90	1
Bromomethane	ND		ug/kg	1.9	0.56	1
Vinyl chloride	ND		ug/kg	0.96	0.32	1
Chloroethane	ND		ug/kg	1.9	0.43	1
1,1-Dichloroethene	ND		ug/kg	0.96	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-06

Date Collected: 12/27/18 12:55

Client ID: RB08_12-14

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.48	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.9	0.19	1
p/m-Xylene	ND		ug/kg	1.9	0.54	1
o-Xylene	ND		ug/kg	0.96	0.28	1
Xylenes, Total	ND		ug/kg	0.96	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.96	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	0.96	0.13	1
Dibromomethane	ND		ug/kg	1.9	0.23	1
Styrene	ND		ug/kg	0.96	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.6	0.88	1
Acetone	6.6	J	ug/kg	9.6	4.6	1
Carbon disulfide	ND		ug/kg	9.6	4.4	1
2-Butanone	ND		ug/kg	9.6	2.1	1
Vinyl acetate	ND		ug/kg	9.6	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	9.6	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	1.9	0.12	1
2-Hexanone	ND		ug/kg	9.6	1.1	1
Bromochloromethane	ND		ug/kg	1.9	0.20	1
2,2-Dichloropropane	ND		ug/kg	1.9	0.19	1
1,2-Dibromoethane	ND		ug/kg	0.96	0.27	1
1,3-Dichloropropane	ND		ug/kg	1.9	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.48	0.13	1
Bromobenzene	ND		ug/kg	1.9	0.14	1
n-Butylbenzene	ND		ug/kg	0.96	0.16	1
sec-Butylbenzene	ND		ug/kg	0.96	0.14	1
tert-Butylbenzene	ND		ug/kg	1.9	0.11	1
o-Chlorotoluene	ND		ug/kg	1.9	0.18	1
p-Chlorotoluene	ND		ug/kg	1.9	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.96	1
Hexachlorobutadiene	ND		ug/kg	3.8	0.16	1
Isopropylbenzene	ND		ug/kg	0.96	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.96	0.10	1
Naphthalene	1.1	J	ug/kg	3.8	0.62	1
Acrylonitrile	ND		ug/kg	3.8	1.1	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-06
Client ID: RB08_12-14
Sample Location: BRONX, NY

Date Collected: 12/27/18 12:55
Date Received: 12/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.96	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.9	0.31	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	0.26	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.9	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.9	0.32	1
1,4-Dioxane	ND		ug/kg	96	34.	1
p-Diethylbenzene	ND		ug/kg	1.9	0.17	1
p-Ethyltoluene	ND		ug/kg	1.9	0.37	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.9	0.18	1
Ethyl ether	ND		ug/kg	1.9	0.33	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.8	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	96		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-07
 Client ID: RB08_14-16
 Sample Location: BRONX, NY

Date Collected: 12/27/18 13:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/04/19 16:15
 Analyst: MKS
 Percent Solids: 68%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	7.1	3.2	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.20	1
Chloroform	ND		ug/kg	2.1	0.20	1
Carbon tetrachloride	ND		ug/kg	1.4	0.33	1
1,2-Dichloropropane	ND		ug/kg	1.4	0.18	1
Dibromochloromethane	ND		ug/kg	1.4	0.20	1
1,1,2-Trichloroethane	ND		ug/kg	1.4	0.38	1
Tetrachloroethene	ND		ug/kg	0.71	0.28	1
Chlorobenzene	ND		ug/kg	0.71	0.18	1
Trichlorofluoromethane	ND		ug/kg	5.7	0.98	1
1,2-Dichloroethane	ND		ug/kg	1.4	0.36	1
1,1,1-Trichloroethane	ND		ug/kg	0.71	0.24	1
Bromodichloromethane	ND		ug/kg	0.71	0.15	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	0.39	1
cis-1,3-Dichloropropene	ND		ug/kg	0.71	0.22	1
1,3-Dichloropropene, Total	ND		ug/kg	0.71	0.22	1
1,1-Dichloropropene	ND		ug/kg	0.71	0.22	1
Bromoform	ND		ug/kg	5.7	0.35	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.71	0.24	1
Benzene	ND		ug/kg	0.71	0.24	1
Toluene	ND		ug/kg	1.4	0.77	1
Ethylbenzene	ND		ug/kg	1.4	0.20	1
Chloromethane	ND		ug/kg	5.7	1.3	1
Bromomethane	ND		ug/kg	2.8	0.82	1
Vinyl chloride	ND		ug/kg	1.4	0.48	1
Chloroethane	ND		ug/kg	2.8	0.64	1
1,1-Dichloroethene	ND		ug/kg	1.4	0.34	1
trans-1,2-Dichloroethene	ND		ug/kg	2.1	0.19	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-07

Date Collected: 12/27/18 13:00

Client ID: RB08_14-16

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.71	0.19	1
1,2-Dichlorobenzene	ND		ug/kg	2.8	0.20	1
1,3-Dichlorobenzene	ND		ug/kg	2.8	0.21	1
1,4-Dichlorobenzene	ND		ug/kg	2.8	0.24	1
Methyl tert butyl ether	ND		ug/kg	2.8	0.28	1
p/m-Xylene	ND		ug/kg	2.8	0.79	1
o-Xylene	ND		ug/kg	1.4	0.41	1
Xylenes, Total	ND		ug/kg	1.4	0.41	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.25	1
1,2-Dichloroethene, Total	ND		ug/kg	1.4	0.19	1
Dibromomethane	ND		ug/kg	2.8	0.34	1
Styrene	ND		ug/kg	1.4	0.28	1
Dichlorodifluoromethane	ND		ug/kg	14	1.3	1
Acetone	82		ug/kg	14	6.8	1
Carbon disulfide	ND		ug/kg	14	6.4	1
2-Butanone	14		ug/kg	14	3.1	1
Vinyl acetate	ND		ug/kg	14	3.0	1
4-Methyl-2-pentanone	ND		ug/kg	14	1.8	1
1,2,3-Trichloropropane	ND		ug/kg	2.8	0.18	1
2-Hexanone	ND		ug/kg	14	1.7	1
Bromochloromethane	ND		ug/kg	2.8	0.29	1
2,2-Dichloropropane	ND		ug/kg	2.8	0.29	1
1,2-Dibromoethane	ND		ug/kg	1.4	0.40	1
1,3-Dichloropropane	ND		ug/kg	2.8	0.24	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.71	0.19	1
Bromobenzene	ND		ug/kg	2.8	0.20	1
n-Butylbenzene	ND		ug/kg	1.4	0.24	1
sec-Butylbenzene	ND		ug/kg	1.4	0.21	1
tert-Butylbenzene	ND		ug/kg	2.8	0.17	1
o-Chlorotoluene	ND		ug/kg	2.8	0.27	1
p-Chlorotoluene	ND		ug/kg	2.8	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.2	1.4	1
Hexachlorobutadiene	ND		ug/kg	5.7	0.24	1
Isopropylbenzene	ND		ug/kg	1.4	0.15	1
p-Isopropyltoluene	0.27	J	ug/kg	1.4	0.15	1
Naphthalene	ND		ug/kg	5.7	0.92	1
Acrylonitrile	ND		ug/kg	5.7	1.6	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-07
Client ID: RB08_14-16
Sample Location: BRONX, NY

Date Collected: 12/27/18 13:00
Date Received: 12/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.4	0.24	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.8	0.46	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.8	0.38	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.8	0.27	1
1,2,4-Trimethylbenzene	0.60	J	ug/kg	2.8	0.47	1
1,4-Dioxane	ND		ug/kg	140	50.	1
p-Diethylbenzene	0.32	J	ug/kg	2.8	0.25	1
p-Ethyltoluene	ND		ug/kg	2.8	0.54	1
1,2,4,5-Tetramethylbenzene	0.46	J	ug/kg	2.8	0.27	1
Ethyl ether	ND		ug/kg	2.8	0.48	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.1	2.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	127		70-130
Dibromofluoromethane	96		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-08
 Client ID: SODUP02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/04/19 14:34
 Analyst: MKS
 Percent Solids: 72%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.3	2.9	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.18	1
Chloroform	ND		ug/kg	1.9	0.18	1
Carbon tetrachloride	ND		ug/kg	1.2	0.29	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.16	1
Dibromochloromethane	ND		ug/kg	1.2	0.18	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.34	1
Tetrachloroethene	ND		ug/kg	0.63	0.25	1
Chlorobenzene	ND		ug/kg	0.63	0.16	1
Trichlorofluoromethane	ND		ug/kg	5.0	0.87	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.32	1
1,1,1-Trichloroethane	ND		ug/kg	0.63	0.21	1
Bromodichloromethane	ND		ug/kg	0.63	0.14	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.34	1
cis-1,3-Dichloropropene	ND		ug/kg	0.63	0.20	1
1,3-Dichloropropene, Total	ND		ug/kg	0.63	0.20	1
1,1-Dichloropropene	ND		ug/kg	0.63	0.20	1
Bromoform	ND		ug/kg	5.0	0.31	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.63	0.21	1
Benzene	ND		ug/kg	0.63	0.21	1
Toluene	ND		ug/kg	1.2	0.68	1
Ethylbenzene	ND		ug/kg	1.2	0.18	1
Chloromethane	ND		ug/kg	5.0	1.2	1
Bromomethane	ND		ug/kg	2.5	0.73	1
Vinyl chloride	ND		ug/kg	1.2	0.42	1
Chloroethane	ND		ug/kg	2.5	0.57	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.30	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.17	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-08
 Client ID: SODUP02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.63	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	2.5	0.18	1
1,3-Dichlorobenzene	ND		ug/kg	2.5	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.5	0.21	1
Methyl tert butyl ether	ND		ug/kg	2.5	0.25	1
p/m-Xylene	ND		ug/kg	2.5	0.70	1
o-Xylene	ND		ug/kg	1.2	0.36	1
Xylenes, Total	ND		ug/kg	1.2	0.36	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.22	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.17	1
Dibromomethane	ND		ug/kg	2.5	0.30	1
Styrene	ND		ug/kg	1.2	0.25	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	28		ug/kg	12	6.0	1
Carbon disulfide	ND		ug/kg	12	5.7	1
2-Butanone	4.7	J	ug/kg	12	2.8	1
Vinyl acetate	ND		ug/kg	12	2.7	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.6	1
1,2,3-Trichloropropane	ND		ug/kg	2.5	0.16	1
2-Hexanone	ND		ug/kg	12	1.5	1
Bromochloromethane	ND		ug/kg	2.5	0.26	1
2,2-Dichloropropane	ND		ug/kg	2.5	0.25	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.35	1
1,3-Dichloropropane	ND		ug/kg	2.5	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.63	0.16	1
Bromobenzene	ND		ug/kg	2.5	0.18	1
n-Butylbenzene	ND		ug/kg	1.2	0.21	1
sec-Butylbenzene	ND		ug/kg	1.2	0.18	1
tert-Butylbenzene	ND		ug/kg	2.5	0.15	1
o-Chlorotoluene	ND		ug/kg	2.5	0.24	1
p-Chlorotoluene	ND		ug/kg	2.5	0.14	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.8	1.2	1
Hexachlorobutadiene	ND		ug/kg	5.0	0.21	1
Isopropylbenzene	ND		ug/kg	1.2	0.14	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.14	1
Naphthalene	ND		ug/kg	5.0	0.82	1
Acrylonitrile	ND		ug/kg	5.0	1.4	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-08
 Client ID: SODUP02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.2	0.21	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.5	0.40	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.5	0.34	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.5	0.24	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.5	0.42	1
1,4-Dioxane	ND		ug/kg	120	44.	1
p-Diethylbenzene	ND		ug/kg	2.5	0.22	1
p-Ethyltoluene	ND		ug/kg	2.5	0.48	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.5	0.24	1
Ethyl ether	ND		ug/kg	2.5	0.43	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.3	1.8	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	109		70-130
Dibromofluoromethane	97		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-09
 Client ID: RB01_9-11
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:35
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/04/19 16:41
 Analyst: MKS
 Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.1	1.9	1
1,1-Dichloroethane	ND		ug/kg	0.81	0.12	1
Chloroform	ND		ug/kg	1.2	0.11	1
Carbon tetrachloride	ND		ug/kg	0.81	0.19	1
1,2-Dichloropropane	ND		ug/kg	0.81	0.10	1
Dibromochloromethane	ND		ug/kg	0.81	0.11	1
1,1,2-Trichloroethane	ND		ug/kg	0.81	0.22	1
Tetrachloroethene	2.2		ug/kg	0.41	0.16	1
Chlorobenzene	ND		ug/kg	0.41	0.10	1
Trichlorofluoromethane	ND		ug/kg	3.2	0.57	1
1,2-Dichloroethane	ND		ug/kg	0.81	0.21	1
1,1,1-Trichloroethane	ND		ug/kg	0.41	0.14	1
Bromodichloromethane	ND		ug/kg	0.41	0.09	1
trans-1,3-Dichloropropene	ND		ug/kg	0.81	0.22	1
cis-1,3-Dichloropropene	ND		ug/kg	0.41	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	0.41	0.13	1
1,1-Dichloropropene	ND		ug/kg	0.41	0.13	1
Bromoform	ND		ug/kg	3.2	0.20	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.41	0.14	1
Benzene	0.32	J	ug/kg	0.41	0.14	1
Toluene	0.46	J	ug/kg	0.81	0.44	1
Ethylbenzene	ND		ug/kg	0.81	0.11	1
Chloromethane	ND		ug/kg	3.2	0.76	1
Bromomethane	ND		ug/kg	1.6	0.47	1
Vinyl chloride	ND		ug/kg	0.81	0.27	1
Chloroethane	ND		ug/kg	1.6	0.37	1
1,1-Dichloroethene	ND		ug/kg	0.81	0.19	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	0.11	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-09

Date Collected: 12/27/18 09:35

Client ID: RB01_9-11

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.41	0.11	1
1,2-Dichlorobenzene	ND		ug/kg	1.6	0.12	1
1,3-Dichlorobenzene	ND		ug/kg	1.6	0.12	1
1,4-Dichlorobenzene	ND		ug/kg	1.6	0.14	1
Methyl tert butyl ether	ND		ug/kg	1.6	0.16	1
p/m-Xylene	ND		ug/kg	1.6	0.46	1
o-Xylene	ND		ug/kg	0.81	0.24	1
Xylenes, Total	ND		ug/kg	0.81	0.24	1
cis-1,2-Dichloroethene	ND		ug/kg	0.81	0.14	1
1,2-Dichloroethene, Total	ND		ug/kg	0.81	0.11	1
Dibromomethane	ND		ug/kg	1.6	0.19	1
Styrene	ND		ug/kg	0.81	0.16	1
Dichlorodifluoromethane	ND		ug/kg	8.1	0.74	1
Acetone	ND		ug/kg	8.1	3.9	1
Carbon disulfide	ND		ug/kg	8.1	3.7	1
2-Butanone	ND		ug/kg	8.1	1.8	1
Vinyl acetate	ND		ug/kg	8.1	1.8	1
4-Methyl-2-pentanone	ND		ug/kg	8.1	1.0	1
1,2,3-Trichloropropane	ND		ug/kg	1.6	0.10	1
2-Hexanone	ND		ug/kg	8.1	0.96	1
Bromochloromethane	ND		ug/kg	1.6	0.17	1
2,2-Dichloropropane	ND		ug/kg	1.6	0.16	1
1,2-Dibromoethane	ND		ug/kg	0.81	0.23	1
1,3-Dichloropropane	ND		ug/kg	1.6	0.14	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.41	0.11	1
Bromobenzene	ND		ug/kg	1.6	0.12	1
n-Butylbenzene	ND		ug/kg	0.81	0.14	1
sec-Butylbenzene	ND		ug/kg	0.81	0.12	1
tert-Butylbenzene	ND		ug/kg	1.6	0.10	1
o-Chlorotoluene	ND		ug/kg	1.6	0.16	1
p-Chlorotoluene	ND		ug/kg	1.6	0.09	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.4	0.81	1
Hexachlorobutadiene	ND		ug/kg	3.2	0.14	1
Isopropylbenzene	ND		ug/kg	0.81	0.09	1
p-Isopropyltoluene	ND		ug/kg	0.81	0.09	1
Naphthalene	ND		ug/kg	3.2	0.53	1
Acrylonitrile	ND		ug/kg	3.2	0.94	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-09

Date Collected: 12/27/18 09:35

Client ID: RB01_9-11

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.81	0.14	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.6	0.26	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.6	0.22	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.6	0.16	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.6	0.27	1
1,4-Dioxane	ND		ug/kg	81	28.	1
p-Diethylbenzene	ND		ug/kg	1.6	0.14	1
p-Ethyltoluene	ND		ug/kg	1.6	0.31	1
1,2,4,5-Tetramethylbenzene	0.21	J	ug/kg	1.6	0.16	1
Ethyl ether	ND		ug/kg	1.6	0.28	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.1	1.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	96		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-10
 Client ID: SOTB03_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/03/19 15:09
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-10
 Client ID: SOTB03_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-10
 Client ID: SOTB03_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	103		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-11
 Client ID: SOFB02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 10:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/03/19 15:45
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-11

Date Collected: 12/27/18 10:45

Client ID: SOFB02_122718

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	1.6	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-11
 Client ID: SOFB02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 10:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	103		70-130

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/02/19 08:09
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,03 Batch: WG1194141-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/02/19 08:09
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,03 Batch: WG1194141-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
 Analytical Date: 01/02/19 08:09
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,03 Batch: WG1194141-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	110		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/02/19 19:31
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,05 Batch: WG1194326-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/02/19 19:31
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,05 Batch: WG1194326-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/02/19 19:31
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,05 Batch: WG1194326-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	105		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/03/19 10:18
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 10-11 Batch: WG1194582-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/03/19 10:18
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 10-11 Batch: WG1194582-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8260C
 Analytical Date: 01/03/19 10:18
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 10-11 Batch: WG1194582-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	100		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/04/19 13:43
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 06-09 Batch: WG1195020-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	0.90	J	ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
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Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/04/19 13:43
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 06-09 Batch: WG1195020-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: GERARD AVE. + E. 146TH ST.
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**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
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Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 06-09 Batch: WG1195020-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	95		70-130

Project Name: GERARD AVE. + E. 146TH ST.
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Method Blank Analysis
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Analytical Method: 1,8260C
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Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 02 Batch: WG1195021-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	45	J	ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8

Project Name: GERARD AVE. + E. 146TH ST.
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Lab Number: L1853234
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**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/04/19 13:43
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 02 Batch: WG1195021-5					
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
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**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/04/19 13:43
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 02 Batch: WG1195021-5					
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	5000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	95		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/05/19 09:52
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 04 Batch: WG1195241-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	0.62	J	ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/05/19 09:52
Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 04 Batch: WG1195241-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8260C
 Analytical Date: 01/05/19 09:52
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 04 Batch: WG1195241-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	94		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03 Batch: WG1194141-3 WG1194141-4								
Methylene chloride	94		93		70-130	1		30
1,1-Dichloroethane	96		95		70-130	1		30
Chloroform	103		102		70-130	1		30
Carbon tetrachloride	115		116		70-130	1		30
1,2-Dichloropropane	89		89		70-130	0		30
Dibromochloromethane	96		98		70-130	2		30
1,1,2-Trichloroethane	92		93		70-130	1		30
Tetrachloroethene	110		109		70-130	1		30
Chlorobenzene	96		96		70-130	0		30
Trichlorofluoromethane	134		130		70-139	3		30
1,2-Dichloroethane	92		94		70-130	2		30
1,1,1-Trichloroethane	112		109		70-130	3		30
Bromodichloromethane	98		99		70-130	1		30
trans-1,3-Dichloropropene	95		95		70-130	0		30
cis-1,3-Dichloropropene	96		96		70-130	0		30
1,1-Dichloropropene	112		110		70-130	2		30
Bromoform	96		96		70-130	0		30
1,1,1,2-Tetrachloroethane	83		84		70-130	1		30
Benzene	100		99		70-130	1		30
Toluene	95		96		70-130	1		30
Ethylbenzene	96		97		70-130	1		30
Chloromethane	100		95		52-130	5		30
Bromomethane	103		99		57-147	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03 Batch: WG1194141-3 WG1194141-4								
Vinyl chloride	108		106		67-130	2		30
Chloroethane	105		104		50-151	1		30
1,1-Dichloroethene	106		105		65-135	1		30
trans-1,2-Dichloroethene	103		101		70-130	2		30
Trichloroethene	103		102		70-130	1		30
1,2-Dichlorobenzene	94		93		70-130	1		30
1,3-Dichlorobenzene	96		96		70-130	0		30
1,4-Dichlorobenzene	95		94		70-130	1		30
Methyl tert butyl ether	96		96		66-130	0		30
p/m-Xylene	99		100		70-130	1		30
o-Xylene	96		96		70-130	0		30
cis-1,2-Dichloroethene	100		98		70-130	2		30
Dibromomethane	98		99		70-130	1		30
Styrene	93		94		70-130	1		30
Dichlorodifluoromethane	92		89		30-146	3		30
Acetone	99		96		54-140	3		30
Carbon disulfide	105		104		59-130	1		30
2-Butanone	83		85		70-130	2		30
Vinyl acetate	103		103		70-130	0		30
4-Methyl-2-pentanone	77		76		70-130	1		30
1,2,3-Trichloropropane	88		88		68-130	0		30
2-Hexanone	70		72		70-130	3		30
Bromochloromethane	107		108		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

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Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03 Batch: WG1194141-3 WG1194141-4								
2,2-Dichloropropane	106		104		70-130	2		30
1,2-Dibromoethane	92		93		70-130	1		30
1,3-Dichloropropane	91		92		69-130	1		30
1,1,1,2-Tetrachloroethane	98		98		70-130	0		30
Bromobenzene	95		94		70-130	1		30
n-Butylbenzene	98		98		70-130	0		30
sec-Butylbenzene	94		94		70-130	0		30
tert-Butylbenzene	98		98		70-130	0		30
o-Chlorotoluene	103		103		70-130	0		30
p-Chlorotoluene	94		94		70-130	0		30
1,2-Dibromo-3-chloropropane	90		90		68-130	0		30
Hexachlorobutadiene	98		99		67-130	1		30
Isopropylbenzene	97		96		70-130	1		30
p-Isopropyltoluene	98		98		70-130	0		30
Naphthalene	87		88		70-130	1		30
Acrylonitrile	86		87		70-130	1		30
n-Propylbenzene	97		97		70-130	0		30
1,2,3-Trichlorobenzene	94		93		70-130	1		30
1,2,4-Trichlorobenzene	93		93		70-130	0		30
1,3,5-Trimethylbenzene	96		97		70-130	1		30
1,2,4-Trimethylbenzene	94		94		70-130	0		30
1,4-Dioxane	110		114		65-136	4		30
p-Diethylbenzene	92		93		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03 Batch: WG1194141-3 WG1194141-4								
p-Ethyltoluene	92		92		70-130	0		30
1,2,4,5-Tetramethylbenzene	88		87		70-130	1		30
Ethyl ether	98		98		67-130	0		30
trans-1,4-Dichloro-2-butene	81		83		70-130	2		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	100		102		70-130
Toluene-d8	99		99		70-130
4-Bromofluorobenzene	96		94		70-130
Dibromofluoromethane	108		110		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,05 Batch: WG1194326-3 WG1194326-4								
Methylene chloride	82		79		70-130	4		30
1,1-Dichloroethane	94		90		70-130	4		30
Chloroform	91		89		70-130	2		30
Carbon tetrachloride	92		91		70-130	1		30
1,2-Dichloropropane	92		90		70-130	2		30
Dibromochloromethane	88		90		70-130	2		30
1,1,2-Trichloroethane	96		94		70-130	2		30
Tetrachloroethene	99		96		70-130	3		30
Chlorobenzene	93		92		70-130	1		30
Trichlorofluoromethane	74		72		70-139	3		30
1,2-Dichloroethane	91		93		70-130	2		30
1,1,1-Trichloroethane	96		93		70-130	3		30
Bromodichloromethane	90		91		70-130	1		30
trans-1,3-Dichloropropene	91		92		70-130	1		30
cis-1,3-Dichloropropene	87		86		70-130	1		30
1,1-Dichloropropene	107		102		70-130	5		30
Bromoform	85		90		70-130	6		30
1,1,2,2-Tetrachloroethane	92		93		70-130	1		30
Benzene	94		91		70-130	3		30
Toluene	99		97		70-130	2		30
Ethylbenzene	103		101		70-130	2		30
Chloromethane	91		82		52-130	10		30
Bromomethane	64		61		57-147	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,05 Batch: WG1194326-3 WG1194326-4								
Vinyl chloride	83		80		67-130	4		30
Chloroethane	72		67		50-151	7		30
1,1-Dichloroethene	83		82		65-135	1		30
trans-1,2-Dichloroethene	86		84		70-130	2		30
Trichloroethene	93		91		70-130	2		30
1,2-Dichlorobenzene	94		94		70-130	0		30
1,3-Dichlorobenzene	96		95		70-130	1		30
1,4-Dichlorobenzene	94		93		70-130	1		30
Methyl tert butyl ether	89		88		66-130	1		30
p/m-Xylene	103		101		70-130	2		30
o-Xylene	102		101		70-130	1		30
cis-1,2-Dichloroethene	89		87		70-130	2		30
Dibromomethane	89		88		70-130	1		30
Styrene	93		92		70-130	1		30
Dichlorodifluoromethane	59		56		30-146	5		30
Acetone	109		105		54-140	4		30
Carbon disulfide	84		80		59-130	5		30
2-Butanone	91		90		70-130	1		30
Vinyl acetate	106		105		70-130	1		30
4-Methyl-2-pentanone	90		92		70-130	2		30
1,2,3-Trichloropropane	94		96		68-130	2		30
2-Hexanone	93		94		70-130	1		30
Bromochloromethane	87		85		70-130	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,05 Batch: WG1194326-3 WG1194326-4								
2,2-Dichloropropane	98		96		70-130	2		30
1,2-Dibromoethane	93		94		70-130	1		30
1,3-Dichloropropane	97		97		69-130	0		30
1,1,1,2-Tetrachloroethane	93		94		70-130	1		30
Bromobenzene	91		91		70-130	0		30
n-Butylbenzene	108		106		70-130	2		30
sec-Butylbenzene	103		101		70-130	2		30
tert-Butylbenzene	106		104		70-130	2		30
o-Chlorotoluene	103		100		70-130	3		30
p-Chlorotoluene	104		103		70-130	1		30
1,2-Dibromo-3-chloropropane	84		86		68-130	2		30
Hexachlorobutadiene	93		93		67-130	0		30
Isopropylbenzene	108		105		70-130	3		30
p-Isopropyltoluene	108		107		70-130	1		30
Naphthalene	88		92		70-130	4		30
Acrylonitrile	86		88		70-130	2		30
n-Propylbenzene	105		104		70-130	1		30
1,2,3-Trichlorobenzene	89		92		70-130	3		30
1,2,4-Trichlorobenzene	93		94		70-130	1		30
1,3,5-Trimethylbenzene	106		103		70-130	3		30
1,2,4-Trimethylbenzene	108		106		70-130	2		30
1,4-Dioxane	106		109		65-136	3		30
p-Diethylbenzene	104		103		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,05 Batch: WG1194326-3 WG1194326-4								
p-Ethyltoluene	102		100		70-130	2		30
1,2,4,5-Tetramethylbenzene	95		95		70-130	0		30
Ethyl ether	69		65	Q	67-130	6		30
trans-1,4-Dichloro-2-butene	90		92		70-130	2		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	111		110		70-130
Toluene-d8	107		107		70-130
4-Bromofluorobenzene	108		108		70-130
Dibromofluoromethane	100		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10-11 Batch: WG1194582-3 WG1194582-4								
Methylene chloride	99		98		70-130	1		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	99		100		70-130	1		20
Carbon tetrachloride	90		88		63-132	2		20
1,2-Dichloropropane	100		110		70-130	10		20
Dibromochloromethane	96		95		63-130	1		20
1,1,2-Trichloroethane	110		110		70-130	0		20
Tetrachloroethene	86		85		70-130	1		20
Chlorobenzene	98		99		75-130	1		20
Trichlorofluoromethane	92		90		62-150	2		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	91		89		67-130	2		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	85		85		70-130	0		20
cis-1,3-Dichloropropene	90		91		70-130	1		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	100		95		54-136	5		20
1,1,2,2-Tetrachloroethane	120		110		67-130	9		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	69		72		64-130	4		20
Bromomethane	49		48		39-139	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10-11 Batch: WG1194582-3 WG1194582-4								
Vinyl chloride	94		93		55-140	1		20
Chloroethane	100		98		55-138	2		20
1,1-Dichloroethene	92		90		61-145	2		20
trans-1,2-Dichloroethene	96		96		70-130	0		20
Trichloroethene	98		97		70-130	1		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		99		70-130	1		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	85		88		63-130	3		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	98		98		70-130	0		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	120		110		64-130	9		20
Acrylonitrile	120		120		70-130	0		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	56		55		36-147	2		20
Acetone	130		130		58-148	0		20
Carbon disulfide	86		86		51-130	0		20
2-Butanone	140	Q	140	Q	63-138	0		20
Vinyl acetate	130		130		70-130	0		20
4-Methyl-2-pentanone	110		110		59-130	0		20
2-Hexanone	120		120		57-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10-11 Batch: WG1194582-3 WG1194582-4									
Bromochloromethane	99		100		70-130		1		20
2,2-Dichloropropane	67		64		63-133		5		20
1,2-Dibromoethane	99		100		70-130		1		20
1,3-Dichloropropane	110		110		70-130		0		20
1,1,1,2-Tetrachloroethane	93		94		64-130		1		20
Bromobenzene	100		100		70-130		0		20
n-Butylbenzene	120		110		53-136		9		20
sec-Butylbenzene	110		110		70-130		0		20
tert-Butylbenzene	110		110		70-130		0		20
o-Chlorotoluene	110		110		70-130		0		20
p-Chlorotoluene	110		110		70-130		0		20
1,2-Dibromo-3-chloropropane	92		94		41-144		2		20
Hexachlorobutadiene	100		98		63-130		2		20
Isopropylbenzene	110		110		70-130		0		20
p-Isopropyltoluene	110		110		70-130		0		20
Naphthalene	110		110		70-130		0		20
n-Propylbenzene	120		110		69-130		9		20
1,2,3-Trichlorobenzene	100		100		70-130		0		20
1,2,4-Trichlorobenzene	99		99		70-130		0		20
1,3,5-Trimethylbenzene	110		110		64-130		0		20
1,2,4-Trimethylbenzene	110		110		70-130		0		20
1,4-Dioxane	120		120		56-162		0		20
p-Diethylbenzene	110		110		70-130		0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10-11 Batch: WG1194582-3 WG1194582-4								
p-Ethyltoluene	110		110		70-130	0		20
1,2,4,5-Tetramethylbenzene	110		100		70-130	10		20
Ethyl ether	100		100		59-134	0		20
trans-1,4-Dichloro-2-butene	100		100		70-130	0		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	110		112		70-130
Toluene-d8	105		105		70-130
4-Bromofluorobenzene	113		112		70-130
Dibromofluoromethane	98		99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 06-09 Batch: WG1195020-3 WG1195020-4								
Methylene chloride	103		96		70-130	7		30
1,1-Dichloroethane	108		101		70-130	7		30
Chloroform	108		101		70-130	7		30
Carbon tetrachloride	108		101		70-130	7		30
1,2-Dichloropropane	104		99		70-130	5		30
Dibromochloromethane	109		103		70-130	6		30
1,1,2-Trichloroethane	106		101		70-130	5		30
Tetrachloroethene	111		103		70-130	7		30
Chlorobenzene	108		101		70-130	7		30
Trichlorofluoromethane	118		107		70-139	10		30
1,2-Dichloroethane	104		99		70-130	5		30
1,1,1-Trichloroethane	108		101		70-130	7		30
Bromodichloromethane	108		102		70-130	6		30
trans-1,3-Dichloropropene	111		106		70-130	5		30
cis-1,3-Dichloropropene	104		98		70-130	6		30
1,1-Dichloropropene	118		109		70-130	8		30
Bromoform	105		101		70-130	4		30
1,1,2,2-Tetrachloroethane	101		97		70-130	4		30
Benzene	107		99		70-130	8		30
Toluene	112		105		70-130	6		30
Ethylbenzene	113		105		70-130	7		30
Chloromethane	118		107		52-130	10		30
Bromomethane	109		100		57-147	9		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 06-09 Batch: WG1195020-3 WG1195020-4								
Vinyl chloride	117		108		67-130	8		30
Chloroethane	114		99		50-151	14		30
1,1-Dichloroethene	110		100		65-135	10		30
trans-1,2-Dichloroethene	107		100		70-130	7		30
Trichloroethene	110		102		70-130	8		30
1,2-Dichlorobenzene	106		101		70-130	5		30
1,3-Dichlorobenzene	109		104		70-130	5		30
1,4-Dichlorobenzene	107		102		70-130	5		30
Methyl tert butyl ether	103		98		66-130	5		30
p/m-Xylene	114		106		70-130	7		30
o-Xylene	110		103		70-130	7		30
cis-1,2-Dichloroethene	108		101		70-130	7		30
Dibromomethane	101		97		70-130	4		30
Styrene	114		106		70-130	7		30
Dichlorodifluoromethane	123		115		30-146	7		30
Acetone	98		93		54-140	5		30
Carbon disulfide	102		93		59-130	9		30
2-Butanone	94		87		70-130	8		30
Vinyl acetate	90		85		70-130	6		30
4-Methyl-2-pentanone	95		87		70-130	9		30
1,2,3-Trichloropropane	105		99		68-130	6		30
2-Hexanone	96		90		70-130	6		30
Bromochloromethane	108		102		70-130	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 06-09 Batch: WG1195020-3 WG1195020-4								
2,2-Dichloropropane	110		101		70-130	9		30
1,2-Dibromoethane	106		100		70-130	6		30
1,3-Dichloropropane	108		103		69-130	5		30
1,1,1,2-Tetrachloroethane	111		104		70-130	7		30
Bromobenzene	108		103		70-130	5		30
n-Butylbenzene	113		106		70-130	6		30
sec-Butylbenzene	113		107		70-130	5		30
tert-Butylbenzene	112		106		70-130	6		30
o-Chlorotoluene	113		103		70-130	9		30
p-Chlorotoluene	112		106		70-130	6		30
1,2-Dibromo-3-chloropropane	103		95		68-130	8		30
Hexachlorobutadiene	108		102		67-130	6		30
Isopropylbenzene	112		105		70-130	6		30
p-Isopropyltoluene	113		106		70-130	6		30
Naphthalene	105		100		70-130	5		30
Acrylonitrile	108		102		70-130	6		30
n-Propylbenzene	114		107		70-130	6		30
1,2,3-Trichlorobenzene	104		100		70-130	4		30
1,2,4-Trichlorobenzene	107		101		70-130	6		30
1,3,5-Trimethylbenzene	113		106		70-130	6		30
1,2,4-Trimethylbenzene	115		107		70-130	7		30
1,4-Dioxane	96		90		65-136	6		30
p-Diethylbenzene	101		94		70-130	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 06-09 Batch: WG1195020-3 WG1195020-4								
p-Ethyltoluene	107		101		70-130	6		30
1,2,4,5-Tetramethylbenzene	102		96		70-130	6		30
Ethyl ether	109		102		67-130	7		30
trans-1,4-Dichloro-2-butene	106		100		70-130	6		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	95		94		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	100		100		70-130
Dibromofluoromethane	95		96		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02 Batch: WG1195021-3 WG1195021-4								
Methylene chloride	103		96		70-130	7		30
1,1-Dichloroethane	108		101		70-130	7		30
Chloroform	108		101		70-130	7		30
Carbon tetrachloride	108		101		70-130	7		30
1,2-Dichloropropane	104		99		70-130	5		30
Dibromochloromethane	109		103		70-130	6		30
1,1,2-Trichloroethane	106		101		70-130	5		30
Tetrachloroethene	111		103		70-130	7		30
Chlorobenzene	108		101		70-130	7		30
Trichlorofluoromethane	118		107		70-139	10		30
1,2-Dichloroethane	104		99		70-130	5		30
1,1,1-Trichloroethane	108		101		70-130	7		30
Bromodichloromethane	108		102		70-130	6		30
trans-1,3-Dichloropropene	111		106		70-130	5		30
cis-1,3-Dichloropropene	104		98		70-130	6		30
1,1-Dichloropropene	118		109		70-130	8		30
Bromoform	105		101		70-130	4		30
1,1,2,2-Tetrachloroethane	101		97		70-130	4		30
Benzene	107		99		70-130	8		30
Toluene	112		105		70-130	6		30
Ethylbenzene	113		105		70-130	7		30
Chloromethane	118		107		52-130	10		30
Bromomethane	109		100		57-147	9		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02 Batch: WG1195021-3 WG1195021-4								
Vinyl chloride	117		108		67-130	8		30
Chloroethane	114		99		50-151	14		30
1,1-Dichloroethene	110		100		65-135	10		30
trans-1,2-Dichloroethene	107		100		70-130	7		30
Trichloroethene	110		102		70-130	8		30
1,2-Dichlorobenzene	106		101		70-130	5		30
1,3-Dichlorobenzene	109		104		70-130	5		30
1,4-Dichlorobenzene	107		102		70-130	5		30
Methyl tert butyl ether	103		98		66-130	5		30
p/m-Xylene	114		106		70-130	7		30
o-Xylene	110		103		70-130	7		30
cis-1,2-Dichloroethene	108		101		70-130	7		30
Dibromomethane	101		97		70-130	4		30
Styrene	114		106		70-130	7		30
Dichlorodifluoromethane	123		115		30-146	7		30
Acetone	98		93		54-140	5		30
Carbon disulfide	102		93		59-130	9		30
2-Butanone	94		87		70-130	8		30
Vinyl acetate	90		85		70-130	6		30
4-Methyl-2-pentanone	95		87		70-130	9		30
1,2,3-Trichloropropane	105		99		68-130	6		30
2-Hexanone	96		90		70-130	6		30
Bromochloromethane	108		102		70-130	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02 Batch: WG1195021-3 WG1195021-4								
2,2-Dichloropropane	110		101		70-130	9		30
1,2-Dibromoethane	106		100		70-130	6		30
1,3-Dichloropropane	108		103		69-130	5		30
1,1,1,2-Tetrachloroethane	111		104		70-130	7		30
Bromobenzene	108		103		70-130	5		30
n-Butylbenzene	113		106		70-130	6		30
sec-Butylbenzene	113		107		70-130	5		30
tert-Butylbenzene	112		106		70-130	6		30
o-Chlorotoluene	113		103		70-130	9		30
p-Chlorotoluene	112		106		70-130	6		30
1,2-Dibromo-3-chloropropane	103		95		68-130	8		30
Hexachlorobutadiene	108		102		67-130	6		30
Isopropylbenzene	112		105		70-130	6		30
p-Isopropyltoluene	113		106		70-130	6		30
Naphthalene	105		100		70-130	5		30
Acrylonitrile	108		102		70-130	6		30
n-Propylbenzene	114		107		70-130	6		30
1,2,3-Trichlorobenzene	104		100		70-130	4		30
1,2,4-Trichlorobenzene	107		101		70-130	6		30
1,3,5-Trimethylbenzene	113		106		70-130	6		30
1,2,4-Trimethylbenzene	115		107		70-130	7		30
1,4-Dioxane	96		90		65-136	6		30
p-Diethylbenzene	101		94		70-130	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02 Batch: WG1195021-3 WG1195021-4								
p-Ethyltoluene	107		101		70-130	6		30
1,2,4,5-Tetramethylbenzene	102		96		70-130	6		30
Ethyl ether	109		102		67-130	7		30
trans-1,4-Dichloro-2-butene	106		100		70-130	6		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	95		94		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	100		100		70-130
Dibromofluoromethane	95		96		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 04 Batch: WG1195241-3 WG1195241-4								
Methylene chloride	91		91		70-130	0		30
1,1-Dichloroethane	96		95		70-130	1		30
Chloroform	97		96		70-130	1		30
Carbon tetrachloride	102		99		70-130	3		30
1,2-Dichloropropane	96		96		70-130	0		30
Dibromochloromethane	99		99		70-130	0		30
1,1,2-Trichloroethane	98		97		70-130	1		30
Tetrachloroethene	104		102		70-130	2		30
Chlorobenzene	99		99		70-130	0		30
Trichlorofluoromethane	104		100		70-139	4		30
1,2-Dichloroethane	96		94		70-130	2		30
1,1,1-Trichloroethane	101		100		70-130	1		30
Bromodichloromethane	99		97		70-130	2		30
trans-1,3-Dichloropropene	100		100		70-130	0		30
cis-1,3-Dichloropropene	99		97		70-130	2		30
1,1-Dichloropropene	103		102		70-130	1		30
Bromoform	101		100		70-130	1		30
1,1,2,2-Tetrachloroethane	99		98		70-130	1		30
Benzene	97		96		70-130	1		30
Toluene	101		100		70-130	1		30
Ethylbenzene	103		102		70-130	1		30
Chloromethane	96		94		52-130	2		30
Bromomethane	89		88		57-147	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 04 Batch: WG1195241-3 WG1195241-4									
Vinyl chloride	99		98		67-130		1		30
Chloroethane	97		94		50-151		3		30
1,1-Dichloroethene	101		99		65-135		2		30
trans-1,2-Dichloroethene	98		97		70-130		1		30
Trichloroethene	99		97		70-130		2		30
1,2-Dichlorobenzene	100		99		70-130		1		30
1,3-Dichlorobenzene	102		101		70-130		1		30
1,4-Dichlorobenzene	100		100		70-130		0		30
Methyl tert butyl ether	96		95		66-130		1		30
p/m-Xylene	104		102		70-130		2		30
o-Xylene	103		103		70-130		0		30
cis-1,2-Dichloroethene	96		95		70-130		1		30
Dibromomethane	94		94		70-130		0		30
Styrene	104		104		70-130		0		30
Dichlorodifluoromethane	103		100		30-146		3		30
Acetone	95		94		54-140		1		30
Carbon disulfide	95		93		59-130		2		30
2-Butanone	92		92		70-130		0		30
Vinyl acetate	95		94		70-130		1		30
4-Methyl-2-pentanone	93		94		70-130		1		30
1,2,3-Trichloropropane	99		98		68-130		1		30
2-Hexanone	97		96		70-130		1		30
Bromochloromethane	96		96		70-130		0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 04 Batch: WG1195241-3 WG1195241-4								
2,2-Dichloropropane	101		99		70-130	2		30
1,2-Dibromoethane	99		99		70-130	0		30
1,3-Dichloropropane	99		100		69-130	1		30
1,1,1,2-Tetrachloroethane	102		101		70-130	1		30
Bromobenzene	101		100		70-130	1		30
n-Butylbenzene	107		106		70-130	1		30
sec-Butylbenzene	108		106		70-130	2		30
tert-Butylbenzene	107		106		70-130	1		30
o-Chlorotoluene	106		102		70-130	4		30
p-Chlorotoluene	104		103		70-130	1		30
1,2-Dibromo-3-chloropropane	97		96		68-130	1		30
Hexachlorobutadiene	105		104		67-130	1		30
Isopropylbenzene	106		105		70-130	1		30
p-Isopropyltoluene	107		107		70-130	0		30
Naphthalene	98		99		70-130	1		30
Acrylonitrile	98		97		70-130	1		30
n-Propylbenzene	106		104		70-130	2		30
1,2,3-Trichlorobenzene	99		97		70-130	2		30
1,2,4-Trichlorobenzene	100		100		70-130	0		30
1,3,5-Trimethylbenzene	105		104		70-130	1		30
1,2,4-Trimethylbenzene	105		104		70-130	1		30
1,4-Dioxane	96		96		65-136	0		30
p-Diethylbenzene	105		105		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 04 Batch: WG1195241-3 WG1195241-4								
p-Ethyltoluene	106		104		70-130	2		30
1,2,4,5-Tetramethylbenzene	104		104		70-130	0		30
Ethyl ether	97		95		67-130	2		30
trans-1,4-Dichloro-2-butene	100		98		70-130	2		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	92		91		70-130
Toluene-d8	99		100		70-130
4-Bromofluorobenzene	100		99		70-130
Dibromofluoromethane	94		94		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03 QC Batch ID: WG1194141-6 WG1194141-7 QC Sample: L1853234-03 Client ID: RB01_25-27												
Methylene chloride	ND	166	110	65	Q	95	69	Q	70-130	12		30
1,1-Dichloroethane	ND	166	120	73		110	79		70-130	10		30
Chloroform	ND	166	120	74		110	77		70-130	13		30
Carbon tetrachloride	ND	166	100	62	Q	110	82		70-130	9		30
1,2-Dichloropropane	ND	166	110	63	Q	91	66	Q	70-130	15		30
Dibromochloromethane	ND	166	79	48	Q	66	48	Q	70-130	18		30
1,1,2-Trichloroethane	ND	166	91	55	Q	78	56	Q	70-130	15		30
Tetrachloroethene	ND	166	100	61	Q	88	64	Q	70-130	13		30
Chlorobenzene	ND	166	81	49	Q	66	48	Q	70-130	19		30
Trichlorofluoromethane	ND	166	170	104		170	122		70-139	2		30
1,2-Dichloroethane	ND	166	98	59	Q	84	61	Q	70-130	15		30
1,1,1-Trichloroethane	ND	166	140	84		130	93		70-130	8		30
Bromodichloromethane	ND	166	97	59	Q	84	61	Q	70-130	14		30
trans-1,3-Dichloropropene	ND	166	61	36	Q	51	37	Q	70-130	17		30
cis-1,3-Dichloropropene	ND	166	71	43	Q	61	44	Q	70-130	16		30
1,1-Dichloropropene	ND	166	130	75		120	86		70-130	5		30
Bromoform	ND	166	71	43	Q	58	42	Q	70-130	20		30
1,1,2,2-Tetrachloroethane	ND	166	73	44	Q	62	45	Q	70-130	16		30
Benzene	ND	166	120	71		100	75		70-130	13		30
Toluene	ND	166	99	60	Q	84	60	Q	70-130	17		30
Ethylbenzene	ND	166	90	54	Q	72	52	Q	70-130	22		30
Chloromethane	ND	166	130	77		120	83		52-130	10		30
Bromomethane	ND	166	110	65		100	75		57-147	4		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03 QC Batch ID: WG1194141-6 WG1194141-7 QC Sample: L1853234-03 Client ID: RB01_25-27												
Vinyl chloride	ND	166	140	87		140	100		67-130	4		30
Chloroethane	ND	166	130	78		120	85		50-151	10		30
1,1-Dichloroethene	ND	166	130	81		130	96		65-135	1		30
trans-1,2-Dichloroethene	ND	166	110	64	Q	100	74		70-130	3		30
Trichloroethene	ND	166	110	66	Q	99	72		70-130	10		30
1,2-Dichlorobenzene	ND	166	56	34	Q	48	35	Q	70-130	15		30
1,3-Dichlorobenzene	ND	166	56	34	Q	48	35	Q	70-130	15		30
1,4-Dichlorobenzene	ND	166	53	32	Q	44	32	Q	70-130	19		30
Methyl tert butyl ether	ND	166	110	67		97	70		66-130	13		30
p/m-Xylene	ND	332	180	53	Q	140	50	Q	70-130	24		30
o-Xylene	ND	332	180	53	Q	140	50	Q	70-130	23		30
cis-1,2-Dichloroethene	ND	166	110	64	Q	96	70		70-130	10		30
Dibromomethane	ND	166	98	59	Q	84	60	Q	70-130	16		30
Styrene	ND	332	90	27	Q	83	30	Q	70-130	9		30
Dichlorodifluoromethane	ND	166	130	76		130	90		30-146	1		30
Acetone	70	166	170	58		130	43	Q	54-140	25		30
Carbon disulfide	15J	166	130	77		130	91		59-130	2		30
2-Butanone	9.4J	166	100	62	Q	85	61	Q	70-130	19		30
Vinyl acetate	ND	166	32	19	Q	29	21	Q	70-130	8		30
4-Methyl-2-pentanone	ND	166	79	48	Q	68	49	Q	70-130	15		30
1,2,3-Trichloropropane	ND	166	80	48	Q	67	49	Q	68-130	17		30
2-Hexanone	ND	166	69	42	Q	59	43	Q	70-130	16		30
Bromochloromethane	ND	166	110	69	Q	96	69	Q	70-130	17		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03 QC Batch ID: WG1194141-6 WG1194141-7 QC Sample: L1853234-03 Client ID: RB01_25-27												
2,2-Dichloropropane	ND	166	130	79		120	89		70-130	6		30
1,2-Dibromoethane	ND	166	77	46	Q	64	46	Q	70-130	18		30
1,3-Dichloropropane	ND	166	86	52	Q	73	53	Q	69-130	16		30
1,1,1,2-Tetrachloroethane	ND	166	85	51	Q	71	51	Q	70-130	18		30
Bromobenzene	ND	166	69	41	Q	56	41	Q	70-130	20		30
n-Butylbenzene	ND	166	63	38	Q	49	36	Q	70-130	23		30
sec-Butylbenzene	ND	166	73	44	Q	59	43	Q	70-130	21		30
tert-Butylbenzene	ND	166	81	49	Q	66	48	Q	70-130	20		30
o-Chlorotoluene	ND	166	82	49	Q	65	47	Q	70-130	23		30
p-Chlorotoluene	ND	166	65	39	Q	52	38	Q	70-130	23		30
1,2-Dibromo-3-chloropropane	ND	166	68	41	Q	59	42	Q	68-130	14		30
Hexachlorobutadiene	ND	166	47	28	Q	44	32	Q	67-130	7		30
Isopropylbenzene	ND	166	88	53	Q	72	52	Q	70-130	20		30
p-Isopropyltoluene	ND	166	73	44	Q	57	41	Q	70-130	24		30
Naphthalene	ND	166	34	20	Q	35	26	Q	70-130	4		30
Acrylonitrile	ND	166	77	47	Q	65	47	Q	70-130	17		30
n-Propylbenzene	ND	166	79	48	Q	62	45	Q	70-130	25		30
1,2,3-Trichlorobenzene	ND	166	30	18	Q	31	23	Q	70-130	5		30
1,2,4-Trichlorobenzene	ND	166	32	20	Q	33	24	Q	70-130	3		30
1,3,5-Trimethylbenzene	ND	166	79	48	Q	63	45	Q	70-130	23		30
1,2,4-Trimethylbenzene	ND	166	74	44	Q	58	42	Q	70-130	24		30
1,4-Dioxane	ND	8290	4800	57	Q	3700	54	Q	65-136	25		30
p-Diethylbenzene	ND	166	63	38	Q	49	35	Q	70-130	26		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03 QC Batch ID: WG1194141-6 WG1194141-7 QC Sample: L1853234-03 Client ID: RB01_25-27												
p-Ethyltoluene	ND	166	75	45	Q	57	41	Q	70-130	27		30
1,2,4,5-Tetramethylbenzene	ND	166	53	32	Q	48	35	Q	70-130	10		30
Ethyl ether	ND	166	110	68		99	72		67-130	13		30
trans-1,4-Dichloro-2-butene	ND	166	28	17	Q	21	15	Q	70-130	32	Q	30

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	108		105		70-130
4-Bromofluorobenzene	99		102		70-130
Dibromofluoromethane	112		111		70-130
Toluene-d8	97		97		70-130

SEMIVOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-01
 Client ID: RB01_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:30
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/03/19 01:49
 Analyst: EK
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 07:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	160		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	35.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	39.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	3600		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	430		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-ethylhexyl)phthalate	100	J	ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	37.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-01

Date Collected: 12/27/18 09:30

Client ID: RB01_0-2

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	41.	1
Benzo(a)anthracene	1800		ug/kg	120	22.	1
Benzo(a)pyrene	1800		ug/kg	160	48.	1
Benzo(b)fluoranthene	2600		ug/kg	120	33.	1
Benzo(k)fluoranthene	850		ug/kg	120	32.	1
Chrysene	2300		ug/kg	120	20.	1
Acenaphthylene	660		ug/kg	160	30.	1
Anthracene	540		ug/kg	120	38.	1
Benzo(ghi)perylene	1900		ug/kg	160	23.	1
Fluorene	210		ug/kg	200	19.	1
Phenanthrene	2800		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	390		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	1600		ug/kg	160	28.	1
Pyrene	3400		ug/kg	120	20.	1
Biphenyl	50	J	ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	140	J	ug/kg	200	19.	1
2-Methylnaphthalene	170	J	ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	350		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
p-Chloro-m-cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	430	74.	1
4-Nitrophenol	ND		ug/kg	280	80.	1
2,4-Dinitrophenol	ND		ug/kg	950	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	95.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	34	J	ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	30.	1
3-Methylphenol/4-Methylphenol	54	J	ug/kg	280	31.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-01
 Client ID: RB01_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:30
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	440		ug/kg	200	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		25-120
Phenol-d6	43		10-120
Nitrobenzene-d5	54		23-120
2-Fluorobiphenyl	63		30-120
2,4,6-Tribromophenol	41		10-136
4-Terphenyl-d14	52		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-02 D
 Client ID: RB01_14-15
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:40
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/07/19 03:30
 Analyst: EK
 Percent Solids: 63%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 07:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	12000		ug/kg	1000	130	5
1,2,4-Trichlorobenzene	ND		ug/kg	1300	150	5
Hexachlorobenzene	ND		ug/kg	780	140	5
Bis(2-chloroethyl)ether	ND		ug/kg	1200	180	5
2-Chloronaphthalene	ND		ug/kg	1300	130	5
1,2-Dichlorobenzene	ND		ug/kg	1300	230	5
1,3-Dichlorobenzene	ND		ug/kg	1300	220	5
1,4-Dichlorobenzene	ND		ug/kg	1300	230	5
3,3'-Dichlorobenzidine	ND		ug/kg	1300	340	5
2,4-Dinitrotoluene	ND		ug/kg	1300	260	5
2,6-Dinitrotoluene	ND		ug/kg	1300	220	5
Fluoranthene	17000		ug/kg	780	150	5
4-Chlorophenyl phenyl ether	ND		ug/kg	1300	140	5
4-Bromophenyl phenyl ether	ND		ug/kg	1300	200	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1600	220	5
Bis(2-chloroethoxy)methane	ND		ug/kg	1400	130	5
Hexachlorobutadiene	ND		ug/kg	1300	190	5
Hexachlorocyclopentadiene	ND		ug/kg	3700	1200	5
Hexachloroethane	ND		ug/kg	1000	210	5
Isophorone	ND		ug/kg	1200	170	5
Naphthalene	5100		ug/kg	1300	160	5
Nitrobenzene	ND		ug/kg	1200	190	5
NDPA/DPA	ND		ug/kg	1000	150	5
n-Nitrosodi-n-propylamine	ND		ug/kg	1300	200	5
Bis(2-ethylhexyl)phthalate	ND		ug/kg	1300	450	5
Butyl benzyl phthalate	ND		ug/kg	1300	330	5
Di-n-butylphthalate	ND		ug/kg	1300	250	5
Di-n-octylphthalate	ND		ug/kg	1300	440	5

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-02 D

Date Collected: 12/27/18 09:40

Client ID: RB01_14-15

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	1300	120	5
Dimethyl phthalate	ND		ug/kg	1300	270	5
Benzo(a)anthracene	10000		ug/kg	780	150	5
Benzo(a)pyrene	13000		ug/kg	1000	320	5
Benzo(b)fluoranthene	11000		ug/kg	780	220	5
Benzo(k)fluoranthene	2200		ug/kg	780	210	5
Chrysene	12000		ug/kg	780	140	5
Acenaphthylene	10000		ug/kg	1000	200	5
Anthracene	3700		ug/kg	780	250	5
Benzo(ghi)perylene	5500		ug/kg	1000	150	5
Fluorene	2300		ug/kg	1300	130	5
Phenanthrene	3300		ug/kg	780	160	5
Dibenzo(a,h)anthracene	1200		ug/kg	780	150	5
Indeno(1,2,3-cd)pyrene	4200		ug/kg	1000	180	5
Pyrene	29000		ug/kg	780	130	5
Biphenyl	690	J	ug/kg	3000	300	5
4-Chloroaniline	ND		ug/kg	1300	240	5
2-Nitroaniline	ND		ug/kg	1300	250	5
3-Nitroaniline	ND		ug/kg	1300	240	5
4-Nitroaniline	ND		ug/kg	1300	540	5
Dibenzofuran	420	J	ug/kg	1300	120	5
2-Methylnaphthalene	1700		ug/kg	1600	160	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	1300	140	5
Acetophenone	ND		ug/kg	1300	160	5
2,4,6-Trichlorophenol	ND		ug/kg	780	250	5
p-Chloro-m-cresol	ND		ug/kg	1300	190	5
2-Chlorophenol	ND		ug/kg	1300	150	5
2,4-Dichlorophenol	ND		ug/kg	1200	210	5
2,4-Dimethylphenol	ND		ug/kg	1300	430	5
2-Nitrophenol	ND		ug/kg	2800	490	5
4-Nitrophenol	ND		ug/kg	1800	530	5
2,4-Dinitrophenol	ND		ug/kg	6200	600	5
4,6-Dinitro-o-cresol	ND		ug/kg	3400	620	5
Pentachlorophenol	ND		ug/kg	1000	290	5
Phenol	ND		ug/kg	1300	200	5
2-Methylphenol	ND		ug/kg	1300	200	5
3-Methylphenol/4-Methylphenol	ND		ug/kg	1900	200	5

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-02 D
 Client ID: RB01_14-15
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:40
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	1300	250	5
Benzoic Acid	ND		ug/kg	4200	1300	5
Benzyl Alcohol	ND		ug/kg	1300	400	5
Carbazole	420	J	ug/kg	1300	130	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	82		25-120
Phenol-d6	84		10-120
Nitrobenzene-d5	95		23-120
2-Fluorobiphenyl	105		30-120
2,4,6-Tribromophenol	84		10-136
4-Terphenyl-d14	88		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-03
 Client ID: RB01_25-27
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/02/19 22:14
 Analyst: EK
 Percent Solids: 60%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 07:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	140	J	ug/kg	210	28.	1
1,2,4-Trichlorobenzene	ND		ug/kg	270	31.	1
Hexachlorobenzene	ND		ug/kg	160	30.	1
Bis(2-chloroethyl)ether	ND		ug/kg	240	36.	1
2-Chloronaphthalene	ND		ug/kg	270	26.	1
1,2-Dichlorobenzene	ND		ug/kg	270	48.	1
1,3-Dichlorobenzene	ND		ug/kg	270	46.	1
1,4-Dichlorobenzene	ND		ug/kg	270	47.	1
3,3'-Dichlorobenzidine	ND		ug/kg	270	71.	1
2,4-Dinitrotoluene	ND		ug/kg	270	54.	1
2,6-Dinitrotoluene	ND		ug/kg	270	46.	1
Fluoranthene	270		ug/kg	160	31.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	270	29.	1
4-Bromophenyl phenyl ether	ND		ug/kg	270	41.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	320	46.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	290	27.	1
Hexachlorobutadiene	ND		ug/kg	270	39.	1
Hexachlorocyclopentadiene	ND		ug/kg	770	240	1
Hexachloroethane	ND		ug/kg	210	43.	1
Isophorone	ND		ug/kg	240	35.	1
Naphthalene	230	J	ug/kg	270	33.	1
Nitrobenzene	ND		ug/kg	240	40.	1
NDPA/DPA	ND		ug/kg	210	30.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	270	41.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	270	93.	1
Butyl benzyl phthalate	ND		ug/kg	270	68.	1
Di-n-butylphthalate	ND		ug/kg	270	51.	1
Di-n-octylphthalate	ND		ug/kg	270	91.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-03

Date Collected: 12/27/18 09:45

Client ID: RB01_25-27

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	270	25.	1
Dimethyl phthalate	ND		ug/kg	270	56.	1
Benzo(a)anthracene	130	J	ug/kg	160	30.	1
Benzo(a)pyrene	120	J	ug/kg	210	65.	1
Benzo(b)fluoranthene	110	J	ug/kg	160	45.	1
Benzo(k)fluoranthene	ND		ug/kg	160	43.	1
Chrysene	120	J	ug/kg	160	28.	1
Acenaphthylene	96	J	ug/kg	210	41.	1
Anthracene	74	J	ug/kg	160	52.	1
Benzo(ghi)perylene	73	J	ug/kg	210	32.	1
Fluorene	56	J	ug/kg	270	26.	1
Phenanthrene	160		ug/kg	160	32.	1
Dibenzo(a,h)anthracene	ND		ug/kg	160	31.	1
Indeno(1,2,3-cd)pyrene	55	J	ug/kg	210	37.	1
Pyrene	390		ug/kg	160	27.	1
Biphenyl	ND		ug/kg	610	62.	1
4-Chloroaniline	ND		ug/kg	270	49.	1
2-Nitroaniline	ND		ug/kg	270	52.	1
3-Nitroaniline	ND		ug/kg	270	50.	1
4-Nitroaniline	ND		ug/kg	270	110	1
Dibenzofuran	29	J	ug/kg	270	25.	1
2-Methylnaphthalene	38	J	ug/kg	320	32.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	270	28.	1
Acetophenone	ND		ug/kg	270	33.	1
2,4,6-Trichlorophenol	ND		ug/kg	160	51.	1
p-Chloro-m-cresol	ND		ug/kg	270	40.	1
2-Chlorophenol	ND		ug/kg	270	32.	1
2,4-Dichlorophenol	ND		ug/kg	240	43.	1
2,4-Dimethylphenol	ND		ug/kg	270	88.	1
2-Nitrophenol	ND		ug/kg	580	100	1
4-Nitrophenol	ND		ug/kg	380	110	1
2,4-Dinitrophenol	ND		ug/kg	1300	120	1
4,6-Dinitro-o-cresol	ND		ug/kg	700	130	1
Pentachlorophenol	ND		ug/kg	210	59.	1
Phenol	ND		ug/kg	270	40.	1
2-Methylphenol	ND		ug/kg	270	42.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	380	42.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-03
 Client ID: RB01_25-27
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	270	51.	1
Benzoic Acid	ND		ug/kg	870	270	1
Benzyl Alcohol	ND		ug/kg	270	82.	1
Carbazole	ND		ug/kg	270	26.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		25-120
Phenol-d6	65		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	70		10-136
4-Terphenyl-d14	62		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-04
 Client ID: RB08_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/03/19 04:13
 Analyst: EK
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 07:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	54	J	ug/kg	150	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	21.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	25.	1
2-Chloronaphthalene	ND		ug/kg	190	18.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	32.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	37.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	1800		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	530	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	65	J	ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	1200		ug/kg	190	65.	1
Butyl benzyl phthalate	59	J	ug/kg	190	47.	1
Di-n-butylphthalate	ND		ug/kg	190	35.	1
Di-n-octylphthalate	200		ug/kg	190	64.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-04

Date Collected: 12/27/18 12:45

Client ID: RB08_0-2

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	17.	1
Dimethyl phthalate	ND		ug/kg	190	39.	1
Benzo(a)anthracene	1000		ug/kg	110	21.	1
Benzo(a)pyrene	760		ug/kg	150	46.	1
Benzo(b)fluoranthene	1000		ug/kg	110	32.	1
Benzo(k)fluoranthene	420		ug/kg	110	30.	1
Chrysene	950		ug/kg	110	19.	1
Acenaphthylene	340		ug/kg	150	29.	1
Anthracene	340		ug/kg	110	36.	1
Benzo(ghi)perylene	550		ug/kg	150	22.	1
Fluorene	66	J	ug/kg	190	18.	1
Phenanthrene	1000		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	150		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	580		ug/kg	150	26.	1
Pyrene	1600		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	430	43.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	36.	1
3-Nitroaniline	ND		ug/kg	190	35.	1
4-Nitroaniline	ND		ug/kg	190	77.	1
Dibenzofuran	40	J	ug/kg	190	18.	1
2-Methylnaphthalene	35	J	ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	62.	1
2-Nitrophenol	ND		ug/kg	400	70.	1
4-Nitrophenol	ND		ug/kg	260	76.	1
2,4-Dinitrophenol	ND		ug/kg	900	87.	1
4,6-Dinitro-o-cresol	ND		ug/kg	490	90.	1
Pentachlorophenol	ND		ug/kg	150	41.	1
Phenol	ND		ug/kg	190	28.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	29.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-04
 Client ID: RB08_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Benzoic Acid	ND		ug/kg	610	190	1
Benzyl Alcohol	ND		ug/kg	190	57.	1
Carbazole	100	J	ug/kg	190	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		25-120
Phenol-d6	55		10-120
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	56		30-120
2,4,6-Tribromophenol	51		10-136
4-Terphenyl-d14	43		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-05
 Client ID: RB08_10-12
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:50
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/03/19 04:36
 Analyst: EK
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 07:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	38	J	ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	32.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	32.	1
Fluoranthene	1300		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	24.	1
Naphthalene	37	J	ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	64.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-05

Date Collected: 12/27/18 12:50

Client ID: RB08_10-12

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	700		ug/kg	110	21.	1
Benzo(a)pyrene	590		ug/kg	150	46.	1
Benzo(b)fluoranthene	830		ug/kg	110	32.	1
Benzo(k)fluoranthene	260		ug/kg	110	30.	1
Chrysene	670		ug/kg	110	20.	1
Acenaphthylene	340		ug/kg	150	29.	1
Anthracene	240		ug/kg	110	37.	1
Benzo(ghi)perylene	410		ug/kg	150	22.	1
Fluorene	55	J	ug/kg	190	18.	1
Phenanthrene	770		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	100	J	ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	420		ug/kg	150	26.	1
Pyrene	1100		ug/kg	110	19.	1
Biphenyl	ND		ug/kg	430	44.	1
4-Chloroaniline	ND		ug/kg	190	34.	1
2-Nitroaniline	ND		ug/kg	190	36.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	78.	1
Dibenzofuran	29	J	ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	62.	1
2-Nitrophenol	ND		ug/kg	410	71.	1
4-Nitrophenol	ND		ug/kg	260	77.	1
2,4-Dinitrophenol	ND		ug/kg	910	88.	1
4,6-Dinitro-o-cresol	ND		ug/kg	490	91.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-05
 Client ID: RB08_10-12
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:50
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Benzoic Acid	ND		ug/kg	610	190	1
Benzyl Alcohol	ND		ug/kg	190	58.	1
Carbazole	82	J	ug/kg	190	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		25-120
Phenol-d6	58		10-120
Nitrobenzene-d5	55		23-120
2-Fluorobiphenyl	57		30-120
2,4,6-Tribromophenol	58		10-136
4-Terphenyl-d14	42		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-06
 Client ID: RB08_12-14
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:55
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/03/19 02:37
 Analyst: EK
 Percent Solids: 84%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 07:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	62	J	ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	35.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	39.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	1100		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	76	J	ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	37.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-06

Date Collected: 12/27/18 12:55

Client ID: RB08_12-14

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	41.	1
Benzo(a)anthracene	510		ug/kg	120	22.	1
Benzo(a)pyrene	500		ug/kg	160	48.	1
Benzo(b)fluoranthene	590		ug/kg	120	33.	1
Benzo(k)fluoranthene	190		ug/kg	120	32.	1
Chrysene	480		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	150		ug/kg	120	38.	1
Benzo(ghi)perylene	340		ug/kg	160	23.	1
Fluorene	55	J	ug/kg	200	19.	1
Phenanthrene	530		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	74	J	ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	330		ug/kg	160	27.	1
Pyrene	990		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	39	J	ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	20.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
p-Chloro-m-cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	420	74.	1
4-Nitrophenol	ND		ug/kg	280	80.	1
2,4-Dinitrophenol	ND		ug/kg	950	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	95.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-06
Client ID: RB08_12-14
Sample Location: BRONX, NY

Date Collected: 12/27/18 12:55
Date Received: 12/27/18
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	51	J	ug/kg	200	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	71		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	69		30-120
2,4,6-Tribromophenol	70		10-136
4-Terphenyl-d14	58		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-07
 Client ID: RB08_14-16
 Sample Location: BRONX, NY

Date Collected: 12/27/18 13:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/02/19 21:03
 Analyst: EK
 Percent Solids: 68%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 07:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	190	25.	1
1,2,4-Trichlorobenzene	ND		ug/kg	240	27.	1
Hexachlorobenzene	ND		ug/kg	140	27.	1
Bis(2-chloroethyl)ether	ND		ug/kg	220	32.	1
2-Chloronaphthalene	ND		ug/kg	240	24.	1
1,2-Dichlorobenzene	ND		ug/kg	240	43.	1
1,3-Dichlorobenzene	ND		ug/kg	240	41.	1
1,4-Dichlorobenzene	ND		ug/kg	240	42.	1
3,3'-Dichlorobenzidine	ND		ug/kg	240	64.	1
2,4-Dinitrotoluene	ND		ug/kg	240	48.	1
2,6-Dinitrotoluene	ND		ug/kg	240	41.	1
Fluoranthene	ND		ug/kg	140	28.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	240	26.	1
4-Bromophenyl phenyl ether	ND		ug/kg	240	36.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	290	41.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	260	24.	1
Hexachlorobutadiene	ND		ug/kg	240	35.	1
Hexachlorocyclopentadiene	ND		ug/kg	680	220	1
Hexachloroethane	ND		ug/kg	190	39.	1
Isophorone	ND		ug/kg	220	31.	1
Naphthalene	ND		ug/kg	240	29.	1
Nitrobenzene	ND		ug/kg	220	35.	1
NDPA/DPA	ND		ug/kg	190	27.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	240	37.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	240	83.	1
Butyl benzyl phthalate	ND		ug/kg	240	60.	1
Di-n-butylphthalate	ND		ug/kg	240	45.	1
Di-n-octylphthalate	ND		ug/kg	240	81.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-07

Date Collected: 12/27/18 13:00

Client ID: RB08_14-16

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	240	22.	1
Dimethyl phthalate	ND		ug/kg	240	50.	1
Benzo(a)anthracene	ND		ug/kg	140	27.	1
Benzo(a)pyrene	ND		ug/kg	190	58.	1
Benzo(b)fluoranthene	ND		ug/kg	140	40.	1
Benzo(k)fluoranthene	ND		ug/kg	140	38.	1
Chrysene	ND		ug/kg	140	25.	1
Acenaphthylene	ND		ug/kg	190	37.	1
Anthracene	ND		ug/kg	140	47.	1
Benzo(ghi)perylene	ND		ug/kg	190	28.	1
Fluorene	ND		ug/kg	240	23.	1
Phenanthrene	ND		ug/kg	140	29.	1
Dibenzo(a,h)anthracene	ND		ug/kg	140	28.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	190	33.	1
Pyrene	29	J	ug/kg	140	24.	1
Biphenyl	ND		ug/kg	550	56.	1
4-Chloroaniline	ND		ug/kg	240	44.	1
2-Nitroaniline	ND		ug/kg	240	46.	1
3-Nitroaniline	ND		ug/kg	240	45.	1
4-Nitroaniline	ND		ug/kg	240	99.	1
Dibenzofuran	ND		ug/kg	240	23.	1
2-Methylnaphthalene	ND		ug/kg	290	29.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	240	25.	1
Acetophenone	ND		ug/kg	240	30.	1
2,4,6-Trichlorophenol	ND		ug/kg	140	45.	1
p-Chloro-m-cresol	ND		ug/kg	240	36.	1
2-Chlorophenol	ND		ug/kg	240	28.	1
2,4-Dichlorophenol	ND		ug/kg	220	38.	1
2,4-Dimethylphenol	ND		ug/kg	240	79.	1
2-Nitrophenol	ND		ug/kg	520	90.	1
4-Nitrophenol	ND		ug/kg	340	98.	1
2,4-Dinitrophenol	ND		ug/kg	1200	110	1
4,6-Dinitro-o-cresol	ND		ug/kg	620	120	1
Pentachlorophenol	ND		ug/kg	190	53.	1
Phenol	ND		ug/kg	240	36.	1
2-Methylphenol	ND		ug/kg	240	37.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	340	38.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-07
 Client ID: RB08_14-16
 Sample Location: BRONX, NY

Date Collected: 12/27/18 13:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	240	46.	1
Benzoic Acid	ND		ug/kg	780	240	1
Benzyl Alcohol	ND		ug/kg	240	73.	1
Carbazole	ND		ug/kg	240	23.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		25-120
Phenol-d6	61		10-120
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	66		30-120
2,4,6-Tribromophenol	65		10-136
4-Terphenyl-d14	62		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-08
 Client ID: SODUP02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/02/19 20:39
 Analyst: EK
 Percent Solids: 72%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 07:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	180	23.	1
1,2,4-Trichlorobenzene	ND		ug/kg	220	26.	1
Hexachlorobenzene	ND		ug/kg	130	25.	1
Bis(2-chloroethyl)ether	ND		ug/kg	200	30.	1
2-Chloronaphthalene	ND		ug/kg	220	22.	1
1,2-Dichlorobenzene	ND		ug/kg	220	40.	1
1,3-Dichlorobenzene	ND		ug/kg	220	38.	1
1,4-Dichlorobenzene	ND		ug/kg	220	39.	1
3,3'-Dichlorobenzidine	ND		ug/kg	220	60.	1
2,4-Dinitrotoluene	ND		ug/kg	220	45.	1
2,6-Dinitrotoluene	ND		ug/kg	220	38.	1
Fluoranthene	ND		ug/kg	130	26.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	220	24.	1
4-Bromophenyl phenyl ether	ND		ug/kg	220	34.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	270	38.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	240	22.	1
Hexachlorobutadiene	ND		ug/kg	220	33.	1
Hexachlorocyclopentadiene	ND		ug/kg	640	200	1
Hexachloroethane	ND		ug/kg	180	36.	1
Isophorone	ND		ug/kg	200	29.	1
Naphthalene	ND		ug/kg	220	27.	1
Nitrobenzene	ND		ug/kg	200	33.	1
NDPA/DPA	ND		ug/kg	180	26.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	220	35.	1
Bis(2-ethylhexyl)phthalate	100	J	ug/kg	220	78.	1
Butyl benzyl phthalate	ND		ug/kg	220	56.	1
Di-n-butylphthalate	ND		ug/kg	220	42.	1
Di-n-octylphthalate	ND		ug/kg	220	76.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-08
 Client ID: SODUP02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	220	21.	1
Dimethyl phthalate	ND		ug/kg	220	47.	1
Benzo(a)anthracene	ND		ug/kg	130	25.	1
Benzo(a)pyrene	ND		ug/kg	180	55.	1
Benzo(b)fluoranthene	ND		ug/kg	130	38.	1
Benzo(k)fluoranthene	ND		ug/kg	130	36.	1
Chrysene	ND		ug/kg	130	23.	1
Acenaphthylene	ND		ug/kg	180	35.	1
Anthracene	ND		ug/kg	130	44.	1
Benzo(ghi)perylene	ND		ug/kg	180	26.	1
Fluorene	ND		ug/kg	220	22.	1
Phenanthrene	ND		ug/kg	130	27.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	26.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	180	31.	1
Pyrene	23	J	ug/kg	130	22.	1
Biphenyl	ND		ug/kg	510	52.	1
4-Chloroaniline	ND		ug/kg	220	41.	1
2-Nitroaniline	ND		ug/kg	220	43.	1
3-Nitroaniline	ND		ug/kg	220	42.	1
4-Nitroaniline	ND		ug/kg	220	93.	1
Dibenzofuran	ND		ug/kg	220	21.	1
2-Methylnaphthalene	ND		ug/kg	270	27.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	220	23.	1
Acetophenone	ND		ug/kg	220	28.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	42.	1
p-Chloro-m-cresol	ND		ug/kg	220	33.	1
2-Chlorophenol	ND		ug/kg	220	26.	1
2,4-Dichlorophenol	ND		ug/kg	200	36.	1
2,4-Dimethylphenol	ND		ug/kg	220	74.	1
2-Nitrophenol	ND		ug/kg	480	84.	1
4-Nitrophenol	ND		ug/kg	310	92.	1
2,4-Dinitrophenol	ND		ug/kg	1100	100	1
4,6-Dinitro-o-cresol	ND		ug/kg	580	110	1
Pentachlorophenol	ND		ug/kg	180	49.	1
Phenol	ND		ug/kg	220	34.	1
2-Methylphenol	ND		ug/kg	220	35.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	320	35.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-08
 Client ID: SODUP02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	220	43.	1
Benzoic Acid	ND		ug/kg	730	230	1
Benzyl Alcohol	ND		ug/kg	220	69.	1
Carbazole	ND		ug/kg	220	22.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	62		25-120
Phenol-d6	64		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	70		10-136
4-Terphenyl-d14	67		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-09 D
 Client ID: RB01_9-11
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:35
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/07/19 03:57
 Analyst: EK
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 07:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	1300		ug/kg	750	97.	5
1,2,4-Trichlorobenzene	ND		ug/kg	940	110	5
Hexachlorobenzene	ND		ug/kg	560	100	5
Bis(2-chloroethyl)ether	ND		ug/kg	840	130	5
2-Chloronaphthalene	ND		ug/kg	940	93.	5
1,2-Dichlorobenzene	ND		ug/kg	940	170	5
1,3-Dichlorobenzene	ND		ug/kg	940	160	5
1,4-Dichlorobenzene	ND		ug/kg	940	160	5
3,3'-Dichlorobenzidine	ND		ug/kg	940	250	5
2,4-Dinitrotoluene	ND		ug/kg	940	190	5
2,6-Dinitrotoluene	ND		ug/kg	940	160	5
Fluoranthene	4900		ug/kg	560	110	5
4-Chlorophenyl phenyl ether	ND		ug/kg	940	100	5
4-Bromophenyl phenyl ether	ND		ug/kg	940	140	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1100	160	5
Bis(2-chloroethoxy)methane	ND		ug/kg	1000	94.	5
Hexachlorobutadiene	ND		ug/kg	940	140	5
Hexachlorocyclopentadiene	ND		ug/kg	2700	850	5
Hexachloroethane	ND		ug/kg	750	150	5
Isophorone	ND		ug/kg	840	120	5
Naphthalene	1800		ug/kg	940	110	5
Nitrobenzene	ND		ug/kg	840	140	5
NDPA/DPA	ND		ug/kg	750	110	5
n-Nitrosodi-n-propylamine	ND		ug/kg	940	140	5
Bis(2-ethylhexyl)phthalate	ND		ug/kg	940	320	5
Butyl benzyl phthalate	ND		ug/kg	940	240	5
Di-n-butylphthalate	ND		ug/kg	940	180	5
Di-n-octylphthalate	ND		ug/kg	940	320	5

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-09 D

Date Collected: 12/27/18 09:35

Client ID: RB01_9-11

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	940	87.	5
Dimethyl phthalate	ND		ug/kg	940	200	5
Benzo(a)anthracene	3700		ug/kg	560	100	5
Benzo(a)pyrene	4700		ug/kg	750	230	5
Benzo(b)fluoranthene	3800		ug/kg	560	160	5
Benzo(k)fluoranthene	1100		ug/kg	560	150	5
Chrysene	3700		ug/kg	560	98.	5
Acenaphthylene	14000		ug/kg	750	140	5
Anthracene	1400		ug/kg	560	180	5
Benzo(ghi)perylene	4200		ug/kg	750	110	5
Fluorene	2100		ug/kg	940	91.	5
Phenanthrene	2400		ug/kg	560	110	5
Dibenzo(a,h)anthracene	680		ug/kg	560	110	5
Indeno(1,2,3-cd)pyrene	2600		ug/kg	750	130	5
Pyrene	9600		ug/kg	560	93.	5
Biphenyl	340	J	ug/kg	2100	220	5
4-Chloroaniline	ND		ug/kg	940	170	5
2-Nitroaniline	ND		ug/kg	940	180	5
3-Nitroaniline	ND		ug/kg	940	180	5
4-Nitroaniline	ND		ug/kg	940	390	5
Dibenzofuran	ND		ug/kg	940	89.	5
2-Methylnaphthalene	750	J	ug/kg	1100	110	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	940	98.	5
Acetophenone	ND		ug/kg	940	120	5
2,4,6-Trichlorophenol	ND		ug/kg	560	180	5
p-Chloro-m-cresol	ND		ug/kg	940	140	5
2-Chlorophenol	ND		ug/kg	940	110	5
2,4-Dichlorophenol	ND		ug/kg	840	150	5
2,4-Dimethylphenol	ND		ug/kg	940	310	5
2-Nitrophenol	ND		ug/kg	2000	350	5
4-Nitrophenol	ND		ug/kg	1300	380	5
2,4-Dinitrophenol	ND		ug/kg	4500	440	5
4,6-Dinitro-o-cresol	ND		ug/kg	2400	450	5
Pentachlorophenol	ND		ug/kg	750	210	5
Phenol	ND		ug/kg	940	140	5
2-Methylphenol	ND		ug/kg	940	140	5
3-Methylphenol/4-Methylphenol	ND		ug/kg	1400	150	5

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-09 D
 Client ID: RB01_9-11
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:35
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	940	180	5
Benzoic Acid	ND		ug/kg	3000	950	5
Benzyl Alcohol	ND		ug/kg	940	290	5
Carbazole	390	J	ug/kg	940	91.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	98		25-120
Phenol-d6	93		10-120
Nitrobenzene-d5	98		23-120
2-Fluorobiphenyl	92		30-120
2,4,6-Tribromophenol	105		10-136
4-Terphenyl-d14	81		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-11
 Client ID: SOFB02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 10:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/04/19 05:11
 Analyst: SZ

Extraction Method: EPA 3510C
 Extraction Date: 12/29/18 12:39

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-11

Date Collected: 12/27/18 10:45

Client ID: SOFB02_122718

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	38		21-120
Phenol-d6	40		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	62		15-120
2,4,6-Tribromophenol	32		10-120
4-Terphenyl-d14	64		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-11
 Client ID: SOFB02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 10:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/05/19 14:24
 Analyst: DV

Extraction Method: EPA 3510C
 Extraction Date: 01/04/19 15:29

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	0.04	J	ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	0.03	J	ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	0.03	J	ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-11

Date Collected: 12/27/18 10:45

Client ID: SOFB02_122718

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Semivolatile Organics by GC/MS-SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	44		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	77		15-120
2,4,6-Tribromophenol	112		10-120
4-Terphenyl-d14	94		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/30/18 01:36
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 12/28/18 07:42

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1193399-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 12/30/18 01:36
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 12/28/18 07:42

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1193399-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D
 Analytical Date: 12/30/18 01:36
 Analyst: RC

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 07:42

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1193399-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	76.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	530	170
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	77		25-120
Phenol-d6	78		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	72		10-136
4-Terphenyl-d14	69		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/04/19 00:52
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 12/29/18 12:39

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1193790-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/04/19 00:52
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 12/29/18 12:39

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1193790-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 01/04/19 00:52
 Analyst: SZ

Extraction Method: EPA 3510C
 Extraction Date: 12/29/18 12:39

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1193790-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	57		15-120
2,4,6-Tribromophenol	55		10-120
4-Terphenyl-d14	55		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 01/05/19 12:27
Analyst: JJW

Extraction Method: EPA 3510C
Extraction Date: 01/04/19 08:03

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 11 Batch: WG1194717-1					
Acenaphthene	0.02	J	ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	ND		ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	0.22		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01
Chrysene	ND		ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	ND		ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	ND		ug/l	0.10	0.02
2-Methylnaphthalene	0.07	J	ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D-SIM
 Analytical Date: 01/05/19 12:27
 Analyst: JJW

Extraction Method: EPA 3510C
 Extraction Date: 01/04/19 08:03

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 11 Batch: WG1194717-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		21-120
Phenol-d6	53		10-120
Nitrobenzene-d5	98		23-120
2-Fluorobiphenyl	93		15-120
2,4,6-Tribromophenol	105		10-120
4-Terphenyl-d14	94		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1193399-2 WG1193399-3								
Acenaphthene	66		65		31-137	2		50
1,2,4-Trichlorobenzene	83		78		38-107	6		50
Hexachlorobenzene	70		70		40-140	0		50
Bis(2-chloroethyl)ether	80		75		40-140	6		50
2-Chloronaphthalene	80		80		40-140	0		50
1,2-Dichlorobenzene	81		75		40-140	8		50
1,3-Dichlorobenzene	78		73		40-140	7		50
1,4-Dichlorobenzene	81		73		28-104	10		50
3,3'-Dichlorobenzidine	73		68		40-140	7		50
2,4-Dinitrotoluene	85		85		40-132	0		50
2,6-Dinitrotoluene	92		91		40-140	1		50
Fluoranthene	75		77		40-140	3		50
4-Chlorophenyl phenyl ether	68		66		40-140	3		50
4-Bromophenyl phenyl ether	70		68		40-140	3		50
Bis(2-chloroisopropyl)ether	73		67		40-140	9		50
Bis(2-chloroethoxy)methane	80		75		40-117	6		50
Hexachlorobutadiene	74		70		40-140	6		50
Hexachlorocyclopentadiene	70		67		40-140	4		50
Hexachloroethane	77		74		40-140	4		50
Isophorone	80		74		40-140	8		50
Naphthalene	78		75		40-140	4		50
Nitrobenzene	86		79		40-140	8		50
NDPA/DPA	70		68		36-157	3		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1193399-2 WG1193399-3								
n-Nitrosodi-n-propylamine	77		72		32-121	7		50
Bis(2-ethylhexyl)phthalate	89		90		40-140	1		50
Butyl benzyl phthalate	86		85		40-140	1		50
Di-n-butylphthalate	83		84		40-140	1		50
Di-n-octylphthalate	93		92		40-140	1		50
Diethyl phthalate	72		72		40-140	0		50
Dimethyl phthalate	80		79		40-140	1		50
Benzo(a)anthracene	71		71		40-140	0		50
Benzo(a)pyrene	83		84		40-140	1		50
Benzo(b)fluoranthene	83		81		40-140	2		50
Benzo(k)fluoranthene	77		82		40-140	6		50
Chrysene	74		76		40-140	3		50
Acenaphthylene	82		82		40-140	0		50
Anthracene	78		79		40-140	1		50
Benzo(ghi)perylene	78		77		40-140	1		50
Fluorene	72		73		40-140	1		50
Phenanthrene	73		76		40-140	4		50
Dibenzo(a,h)anthracene	75		76		40-140	1		50
Indeno(1,2,3-cd)pyrene	78		77		40-140	1		50
Pyrene	74		76		35-142	3		50
Biphenyl	83		81		54-104	2		50
4-Chloroaniline	58		57		40-140	2		50
2-Nitroaniline	97		96		47-134	1		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1193399-2 WG1193399-3								
3-Nitroaniline	68		71		26-129	4		50
4-Nitroaniline	75		74		41-125	1		50
Dibenzofuran	72		73		40-140	1		50
2-Methylnaphthalene	77		76		40-140	1		50
1,2,4,5-Tetrachlorobenzene	83		80		40-117	4		50
Acetophenone	85		79		14-144	7		50
2,4,6-Trichlorophenol	86		86		30-130	0		50
p-Chloro-m-cresol	83		82		26-103	1		50
2-Chlorophenol	91		83		25-102	9		50
2,4-Dichlorophenol	94		91		30-130	3		50
2,4-Dimethylphenol	91		87		30-130	4		50
2-Nitrophenol	105		100		30-130	5		50
4-Nitrophenol	86		84		11-114	2		50
2,4-Dinitrophenol	90		89		4-130	1		50
4,6-Dinitro-o-cresol	86		86		10-130	0		50
Pentachlorophenol	87		84		17-109	4		50
Phenol	82		75		26-90	9		50
2-Methylphenol	88		82		30-130.	7		50
3-Methylphenol/4-Methylphenol	95		89		30-130	7		50
2,4,5-Trichlorophenol	89		87		30-130	2		50
Benzoic Acid	56		57		10-110	2		50
Benzyl Alcohol	84		78		40-140	7		50
Carbazole	78		79		54-128	1		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1193399-2 WG1193399-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	91		82		25-120
Phenol-d6	88		83		10-120
Nitrobenzene-d5	90		83		23-120
2-Fluorobiphenyl	80		78		30-120
2,4,6-Tribromophenol	79		79		10-136
4-Terphenyl-d14	69		70		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1193790-2 WG1193790-3								
Acenaphthene	67		67		37-111	0		30
1,2,4-Trichlorobenzene	63		61		39-98	3		30
Hexachlorobenzene	63		65		40-140	3		30
Bis(2-chloroethyl)ether	73		69		40-140	6		30
2-Chloronaphthalene	65		63		40-140	3		30
1,2-Dichlorobenzene	65		60		40-140	8		30
1,3-Dichlorobenzene	61		58		40-140	5		30
1,4-Dichlorobenzene	62		61		36-97	2		30
3,3'-Dichlorobenzidine	40		35	Q	40-140	13		30
2,4-Dinitrotoluene	70		72		48-143	3		30
2,6-Dinitrotoluene	68		68		40-140	0		30
Fluoranthene	68		72		40-140	6		30
4-Chlorophenyl phenyl ether	67		67		40-140	0		30
4-Bromophenyl phenyl ether	68		69		40-140	1		30
Bis(2-chloroisopropyl)ether	85		83		40-140	2		30
Bis(2-chloroethoxy)methane	74		73		40-140	1		30
Hexachlorobutadiene	66		62		40-140	6		30
Hexachlorocyclopentadiene	60		59		40-140	2		30
Hexachloroethane	65		61		40-140	6		30
Isophorone	75		76		40-140	1		30
Naphthalene	66		64		40-140	3		30
Nitrobenzene	70		68		40-140	3		30
NDPA/DPA	64		65		40-140	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1193790-2 WG1193790-3								
n-Nitrosodi-n-propylamine	76		75		29-132	1		30
Bis(2-ethylhexyl)phthalate	93		91		40-140	2		30
Butyl benzyl phthalate	67		69		40-140	3		30
Di-n-butylphthalate	71		75		40-140	5		30
Di-n-octylphthalate	83		86		40-140	4		30
Diethyl phthalate	66		71		40-140	7		30
Dimethyl phthalate	66		66		40-140	0		30
Benzo(a)anthracene	73		74		40-140	1		30
Benzo(a)pyrene	77		77		40-140	0		30
Benzo(b)fluoranthene	76		78		40-140	3		30
Benzo(k)fluoranthene	76		76		40-140	0		30
Chrysene	76		78		40-140	3		30
Acenaphthylene	65		64		45-123	2		30
Anthracene	70		71		40-140	1		30
Benzo(ghi)perylene	73		77		40-140	5		30
Fluorene	66		66		40-140	0		30
Phenanthrene	68		69		40-140	1		30
Dibenzo(a,h)anthracene	72		75		40-140	4		30
Indeno(1,2,3-cd)pyrene	72		74		40-140	3		30
Pyrene	65		69		26-127	6		30
Biphenyl	66		65		40-140	2		30
4-Chloroaniline	44		38	Q	40-140	15		30
2-Nitroaniline	70		71		52-143	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1193790-2 WG1193790-3								
3-Nitroaniline	47		50		25-145	6		30
4-Nitroaniline	59		60		51-143	2		30
Dibenzofuran	67		67		40-140	0		30
2-Methylnaphthalene	68		65		40-140	5		30
1,2,4,5-Tetrachlorobenzene	64		61		2-134	5		30
Acetophenone	71		70		39-129	1		30
2,4,6-Trichlorophenol	63		65		30-130	3		30
p-Chloro-m-cresol	70		70		23-97	0		30
2-Chlorophenol	66		63		27-123	5		30
2,4-Dichlorophenol	65		64		30-130	2		30
2,4-Dimethylphenol	36		29	Q	30-130	22		30
2-Nitrophenol	68		65		30-130	5		30
4-Nitrophenol	65		71		10-80	9		30
2,4-Dinitrophenol	79		82		20-130	4		30
4,6-Dinitro-o-cresol	70		71		20-164	1		30
Pentachlorophenol	67		76		9-103	13		30
Phenol	55		53		12-110	4		30
2-Methylphenol	63		59		30-130	7		30
3-Methylphenol/4-Methylphenol	66		63		30-130	5		30
2,4,5-Trichlorophenol	65		64		30-130	2		30
Benzoic Acid	65		66		10-164	2		30
Benzyl Alcohol	71		68		26-116	4		30
Carbazole	67		70		55-144	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1193790-2 WG1193790-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	61		59		21-120
Phenol-d6	53		53		10-120
Nitrobenzene-d5	72		70		23-120
2-Fluorobiphenyl	62		62		15-120
2,4,6-Tribromophenol	60		64		10-120
4-Terphenyl-d14	58		62		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 11 Batch: WG1194717-2 WG1194717-3								
Acenaphthene	82		87		40-140	6		40
2-Chloronaphthalene	80		83		40-140	4		40
Fluoranthene	99		99		40-140	0		40
Hexachlorobutadiene	73		79		40-140	8		40
Naphthalene	75		82		40-140	9		40
Benzo(a)anthracene	95		101		40-140	6		40
Benzo(a)pyrene	101		107		40-140	6		40
Benzo(b)fluoranthene	97		103		40-140	6		40
Benzo(k)fluoranthene	98		106		40-140	8		40
Chrysene	85		91		40-140	7		40
Acenaphthylene	92		96		40-140	4		40
Anthracene	91		96		40-140	5		40
Benzo(ghi)perylene	92		95		40-140	3		40
Fluorene	92		96		40-140	4		40
Phenanthrene	84		88		40-140	5		40
Dibenzo(a,h)anthracene	98		102		40-140	4		40
Indeno(1,2,3-cd)pyrene	99		103		40-140	4		40
Pyrene	100		100		40-140	0		40
2-Methylnaphthalene	79		84		40-140	6		40
Pentachlorophenol	99		106		40-140	7		40
Hexachlorobenzene	84		90		40-140	7		40
Hexachloroethane	72		81		40-140	12		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 11 Batch: WG1194717-2 WG1194717-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	66		68		21-120
Phenol-d6	56		58		10-120
Nitrobenzene-d5	90		96		23-120
2-Fluorobiphenyl	80		81		15-120
2,4,6-Tribromophenol	109		100		10-120
4-Terphenyl-d14	91		88		41-149

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1193399-6 WG1193399-7 QC Sample: L1853234-03 Client ID: RB01_25-27												
Acenaphthene	140J	2170	1300	60		1200	55		31-137	8		50
1,2,4-Trichlorobenzene	ND	2170	1500	69		1400	64		38-107	7		50
Hexachlorobenzene	ND	2170	1400	64		1300	59		40-140	7		50
Bis(2-chloroethyl)ether	ND	2170	1400	64		1300	59		40-140	7		50
2-Chloronaphthalene	ND	2170	1500	69		1400	64		40-140	7		50
1,2-Dichlorobenzene	ND	2170	1400	64		1300	59		40-140	7		50
1,3-Dichlorobenzene	ND	2170	1300	60		1300	59		40-140	0		50
1,4-Dichlorobenzene	ND	2170	1400	64		1300	59		28-104	7		50
3,3'-Dichlorobenzidine	ND	2170	1200	55		1200	55		40-140	0		50
2,4-Dinitrotoluene	ND	2170	1200	55		1200	55		40-132	0		50
2,6-Dinitrotoluene	ND	2170	1400	64		1400	64		40-140	0		50
Fluoranthene	270	2170	1500	57		1400	52		40-140	7		50
4-Chlorophenyl phenyl ether	ND	2170	1300	60		1200	55		40-140	8		50
4-Bromophenyl phenyl ether	ND	2170	1400	64		1300	59		40-140	7		50
Bis(2-chloroisopropyl)ether	ND	2170	1400	64		1300	59		40-140	7		50
Bis(2-chloroethoxy)methane	ND	2170	1500	69		1400	64		40-117	7		50
Hexachlorobutadiene	ND	2170	1500	69		1400	64		40-140	7		50
Hexachlorocyclopentadiene	ND	2170	980	45		920	42		40-140	6		50
Hexachloroethane	ND	2170	1300	60		1200	55		40-140	8		50
Isophorone	ND	2170	1500	69		1400	64		40-140	7		50
Naphthalene	230J	2170	1500	69		1400	64		40-140	7		50
Nitrobenzene	ND	2170	1400	64		1300	59		40-140	7		50
NDPA/DPA	ND	2170	1300	60		1200	55		36-157	8		50

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1193399-6 WG1193399-7 QC Sample: L1853234-03 Client ID: RB01_25-27												
n-Nitrosodi-n-propylamine	ND	2170	1500	69		1400	64		32-121	7		50
Bis(2-ethylhexyl)phthalate	ND	2170	1400	64		1300	59		40-140	7		50
Butyl benzyl phthalate	ND	2170	1400	64		1300	59		40-140	7		50
Di-n-butylphthalate	ND	2170	1400	64		1400	64		40-140	0		50
Di-n-octylphthalate	ND	2170	1400	64		1300	59		40-140	7		50
Diethyl phthalate	ND	2170	1200	55		1200	55		40-140	0		50
Dimethyl phthalate	ND	2170	1600	74		1500	69		40-140	6		50
Benzo(a)anthracene	130J	2170	1300	60		1300	59		40-140	0		50
Benzo(a)pyrene	120J	2170	1400	64		1300	59		40-140	7		50
Benzo(b)fluoranthene	110J	2170	1300	60		1300	59		40-140	0		50
Benzo(k)fluoranthene	ND	2170	1400	64		1400	64		40-140	0		50
Chrysene	120J	2170	1300	60		1300	59		40-140	0		50
Acenaphthylene	96J	2170	1600	74		1500	69		40-140	6		50
Anthracene	74J	2170	1400	64		1300	59		40-140	7		50
Benzo(ghi)perylene	73J	2170	1300	60		1300	59		40-140	0		50
Fluorene	56J	2170	1300	60		1200	55		40-140	8		50
Phenanthrene	160	2170	1400	64		1300	59		40-140	7		50
Dibenzo(a,h)anthracene	ND	2170	1400	64		1300	59		40-140	7		50
Indeno(1,2,3-cd)pyrene	55J	2170	1300	60		1300	59		40-140	0		50
Pyrene	390	2170	1500	51		1400	46		35-142	7		50
Biphenyl	ND	2170	1500	69		1400	64		54-104	7		50
4-Chloroaniline	ND	2170	930	43		930	43		40-140	0		50
2-Nitroaniline	ND	2170	1600	74		1500	69		47-134	6		50

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1193399-6 WG1193399-7 QC Sample: L1853234-03 Client ID: RB01_25-27												
3-Nitroaniline	ND	2170	940	43		940	43		26-129	0		50
4-Nitroaniline	ND	2170	1200	55		1100	50		41-125	9		50
Dibenzofuran	29J	2170	1200	55		1200	55		40-140	0		50
2-Methylnaphthalene	38J	2170	1500	69		1400	64		40-140	7		50
1,2,4,5-Tetrachlorobenzene	ND	2170	1600	74		1500	69		40-117	6		50
Acetophenone	ND	2170	1500	69		1400	64		14-144	7		50
2,4,6-Trichlorophenol	ND	2170	1600	74		1500	69		30-130	6		50
p-Chloro-m-cresol	ND	2170	1600	74		1500	69		26-103	6		50
2-Chlorophenol	ND	2170	1500	69		1400	64		25-102	7		50
2,4-Dichlorophenol	ND	2170	1700	78		1500	69		30-130	13		50
2,4-Dimethylphenol	ND	2170	1700	78		1500	69		30-130	13		50
2-Nitrophenol	ND	2170	1400	64		1300	59		30-130	7		50
4-Nitrophenol	ND	2170	1000	46		910	42		11-114	9		50
2,4-Dinitrophenol	ND	2170	ND	0	Q	ND	0	Q	4-130	NC		50
4,6-Dinitro-o-cresol	ND	2170	200J	9	Q	140J	6	Q	10-130	35		50
Pentachlorophenol	ND	2170	1300	60		1200	55		17-109	8		50
Phenol	ND	2170	1400	64		1400	64		26-90	0		50
2-Methylphenol	ND	2170	1500	69		1400	64		30-130	7		50
3-Methylphenol/4-Methylphenol	ND	2170	1500	69		1400	64		30-130	7		50
2,4,5-Trichlorophenol	ND	2170	1700	78		1500	69		30-130	13		50
Benzoic Acid	ND	2170	ND	0	Q	ND	0	Q	10-110	NC		50
Benzyl Alcohol	ND	2170	1600	74		1400	64		40-140	13		50
Carbazole	ND	2170	1400	64		1300	59		54-128	7		50

Matrix Spike Analysis**Batch Quality Control****Project Name:** GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Semivolatiles Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1193399-6 WG1193399-7 QC Sample: L1853234-03 Client ID: RB01_25-27

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
2,4,6-Tribromophenol	69		62		10-136
2-Fluorobiphenyl	71		68		30-120
2-Fluorophenol	65		60		25-120
4-Terphenyl-d14	66		62		18-120
Nitrobenzene-d5	64		61		23-120
Phenol-d6	68		64		10-120

PCBS

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-01
 Client ID: RB01_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:30
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 19:44
 Analyst: WR
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 08:40
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/28/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.5	3.42	1	A
Aroclor 1221	ND		ug/kg	38.5	3.86	1	A
Aroclor 1232	ND		ug/kg	38.5	8.17	1	A
Aroclor 1242	ND		ug/kg	38.5	5.20	1	A
Aroclor 1248	ND		ug/kg	38.5	5.78	1	A
Aroclor 1254	ND		ug/kg	38.5	4.22	1	A
Aroclor 1260	ND		ug/kg	38.5	7.12	1	A
Aroclor 1262	ND		ug/kg	38.5	4.90	1	A
Aroclor 1268	ND		ug/kg	38.5	3.99	1	A
PCBs, Total	ND		ug/kg	38.5	3.42	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	50		30-150	A
2,4,5,6-Tetrachloro-m-xylene	56		30-150	B
Decachlorobiphenyl	59		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-02
 Client ID: RB01_14-15
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:40
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 19:56
 Analyst: WR
 Percent Solids: 63%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 08:40
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/28/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	51.1	4.54	1	A
Aroclor 1221	ND		ug/kg	51.1	5.12	1	A
Aroclor 1232	ND		ug/kg	51.1	10.8	1	A
Aroclor 1242	ND		ug/kg	51.1	6.89	1	A
Aroclor 1248	ND		ug/kg	51.1	7.67	1	A
Aroclor 1254	ND		ug/kg	51.1	5.59	1	A
Aroclor 1260	ND		ug/kg	51.1	9.45	1	A
Aroclor 1262	ND		ug/kg	51.1	6.49	1	A
Aroclor 1268	ND		ug/kg	51.1	5.30	1	A
PCBs, Total	ND		ug/kg	51.1	4.54	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	44		30-150	A
Decachlorobiphenyl	51		30-150	A
2,4,5,6-Tetrachloro-m-xylene	47		30-150	B
Decachlorobiphenyl	47		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-03
Client ID: RB01_25-27
Sample Location: BRONX, NY

Date Collected: 12/27/18 09:45
Date Received: 12/27/18
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 01/02/19 20:09
Analyst: WR
Percent Solids: 60%

Extraction Method: EPA 3546
Extraction Date: 12/28/18 08:40
Cleanup Method: EPA 3665A
Cleanup Date: 12/28/18
Cleanup Method: EPA 3660B
Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	54.3	4.82	1	A
Aroclor 1221	ND		ug/kg	54.3	5.44	1	A
Aroclor 1232	ND		ug/kg	54.3	11.5	1	A
Aroclor 1242	ND		ug/kg	54.3	7.32	1	A
Aroclor 1248	ND		ug/kg	54.3	8.14	1	A
Aroclor 1254	ND		ug/kg	54.3	5.94	1	A
Aroclor 1260	ND		ug/kg	54.3	10.0	1	A
Aroclor 1262	ND		ug/kg	54.3	6.89	1	A
Aroclor 1268	ND		ug/kg	54.3	5.62	1	A
PCBs, Total	ND		ug/kg	54.3	4.82	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	55		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	63		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-04
 Client ID: RB08_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 20:46
 Analyst: WR
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 08:40
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/28/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.1	3.21	1	A
Aroclor 1221	ND		ug/kg	36.1	3.62	1	A
Aroclor 1232	ND		ug/kg	36.1	7.66	1	A
Aroclor 1242	ND		ug/kg	36.1	4.87	1	A
Aroclor 1248	ND		ug/kg	36.1	5.42	1	A
Aroclor 1254	ND		ug/kg	36.1	3.95	1	A
Aroclor 1260	40.7		ug/kg	36.1	6.68	1	B
Aroclor 1262	ND		ug/kg	36.1	4.59	1	A
Aroclor 1268	ND		ug/kg	36.1	3.74	1	A
PCBs, Total	40.7		ug/kg	36.1	3.21	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	48		30-150	A
Decachlorobiphenyl	54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	62		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-05
 Client ID: RB08_10-12
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:50
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 20:59
 Analyst: WR
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 08:40
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/28/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.5	3.33	1	A
Aroclor 1221	ND		ug/kg	37.5	3.76	1	A
Aroclor 1232	ND		ug/kg	37.5	7.95	1	A
Aroclor 1242	ND		ug/kg	37.5	5.05	1	A
Aroclor 1248	ND		ug/kg	37.5	5.62	1	A
Aroclor 1254	ND		ug/kg	37.5	4.10	1	A
Aroclor 1260	ND		ug/kg	37.5	6.93	1	A
Aroclor 1262	ND		ug/kg	37.5	4.76	1	A
Aroclor 1268	ND		ug/kg	37.5	3.88	1	A
PCBs, Total	ND		ug/kg	37.5	3.33	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	56		30-150	A
Decachlorobiphenyl	49		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	58		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-06
 Client ID: RB08_12-14
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:55
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 21:11
 Analyst: WR
 Percent Solids: 84%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 08:40
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/28/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.6	3.34	1	A
Aroclor 1221	ND		ug/kg	37.6	3.77	1	A
Aroclor 1232	ND		ug/kg	37.6	7.98	1	A
Aroclor 1242	ND		ug/kg	37.6	5.07	1	A
Aroclor 1248	ND		ug/kg	37.6	5.65	1	A
Aroclor 1254	ND		ug/kg	37.6	4.12	1	A
Aroclor 1260	ND		ug/kg	37.6	6.96	1	A
Aroclor 1262	ND		ug/kg	37.6	4.78	1	A
Aroclor 1268	ND		ug/kg	37.6	3.90	1	A
PCBs, Total	ND		ug/kg	37.6	3.34	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	44		30-150	A
Decachlorobiphenyl	36		30-150	A
2,4,5,6-Tetrachloro-m-xylene	45		30-150	B
Decachlorobiphenyl	41		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-07
 Client ID: RB08_14-16
 Sample Location: BRONX, NY

Date Collected: 12/27/18 13:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 21:24
 Analyst: WR
 Percent Solids: 68%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 08:40
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/28/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	47.4	4.21	1	A
Aroclor 1221	ND		ug/kg	47.4	4.75	1	A
Aroclor 1232	ND		ug/kg	47.4	10.0	1	A
Aroclor 1242	ND		ug/kg	47.4	6.39	1	A
Aroclor 1248	ND		ug/kg	47.4	7.11	1	A
Aroclor 1254	ND		ug/kg	47.4	5.18	1	A
Aroclor 1260	ND		ug/kg	47.4	8.76	1	A
Aroclor 1262	ND		ug/kg	47.4	6.02	1	A
Aroclor 1268	ND		ug/kg	47.4	4.91	1	A
PCBs, Total	ND		ug/kg	47.4	4.21	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	63		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-08
Client ID: SODUP02_122718
Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
Date Received: 12/27/18
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 01/02/19 21:36
Analyst: WR
Percent Solids: 72%

Extraction Method: EPA 3546
Extraction Date: 12/28/18 08:40
Cleanup Method: EPA 3665A
Cleanup Date: 12/28/18
Cleanup Method: EPA 3660B
Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	44.6	3.96	1	A
Aroclor 1221	ND		ug/kg	44.6	4.47	1	A
Aroclor 1232	ND		ug/kg	44.6	9.46	1	A
Aroclor 1242	ND		ug/kg	44.6	6.01	1	A
Aroclor 1248	ND		ug/kg	44.6	6.69	1	A
Aroclor 1254	ND		ug/kg	44.6	4.88	1	A
Aroclor 1260	ND		ug/kg	44.6	8.24	1	A
Aroclor 1262	ND		ug/kg	44.6	5.67	1	A
Aroclor 1268	ND		ug/kg	44.6	4.62	1	A
PCBs, Total	ND		ug/kg	44.6	3.96	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	66		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-09
 Client ID: RB01_9-11
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:35
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/02/19 22:22
 Analyst: WR
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 08:40
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/28/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.2	3.39	1	A
Aroclor 1221	ND		ug/kg	38.2	3.83	1	A
Aroclor 1232	ND		ug/kg	38.2	8.10	1	A
Aroclor 1242	ND		ug/kg	38.2	5.15	1	A
Aroclor 1248	ND		ug/kg	38.2	5.73	1	A
Aroclor 1254	ND		ug/kg	38.2	4.18	1	A
Aroclor 1260	ND		ug/kg	38.2	7.06	1	A
Aroclor 1262	ND		ug/kg	38.2	4.85	1	A
Aroclor 1268	ND		ug/kg	38.2	3.96	1	A
PCBs, Total	ND		ug/kg	38.2	3.39	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	50		30-150	A
Decachlorobiphenyl	54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	68		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-11
 Client ID: SOFB02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 10:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8082A
 Analytical Date: 12/30/18 22:05
 Analyst: AWS

Extraction Method: EPA 3510C
 Extraction Date: 12/30/18 07:15
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/30/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/30/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.083	0.034	1	A
Aroclor 1221	ND		ug/l	0.083	0.067	1	A
Aroclor 1232	ND		ug/l	0.083	0.046	1	A
Aroclor 1242	ND		ug/l	0.083	0.039	1	A
Aroclor 1248	ND		ug/l	0.083	0.049	1	A
Aroclor 1254	ND		ug/l	0.083	0.039	1	A
Aroclor 1260	ND		ug/l	0.083	0.032	1	A
Aroclor 1262	ND		ug/l	0.083	0.035	1	A
Aroclor 1268	ND		ug/l	0.083	0.034	1	A
PCBs, Total	ND		ug/l	0.083	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	82		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8082A
Analytical Date: 12/30/18 23:40
Analyst: WR

Extraction Method: EPA 3546
Extraction Date: 12/28/18 08:40
Cleanup Method: EPA 3665A
Cleanup Date: 12/28/18
Cleanup Method: EPA 3660B
Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-09 Batch: WG1193423-1						
Aroclor 1016	ND		ug/kg	31.6	2.80	A
Aroclor 1221	ND		ug/kg	31.6	3.16	A
Aroclor 1232	ND		ug/kg	31.6	6.69	A
Aroclor 1242	ND		ug/kg	31.6	4.26	A
Aroclor 1248	ND		ug/kg	31.6	4.73	A
Aroclor 1254	ND		ug/kg	31.6	3.45	A
Aroclor 1260	ND		ug/kg	31.6	5.83	A
Aroclor 1262	ND		ug/kg	31.6	4.01	A
Aroclor 1268	ND		ug/kg	31.6	3.27	A
PCBs, Total	ND		ug/kg	31.6	2.80	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	60		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
 Analytical Date: 12/30/18 22:19
 Analyst: AWS

Extraction Method: EPA 3510C
 Extraction Date: 12/30/18 07:15
 Cleanup Method: EPA 3665A
 Cleanup Date: 12/30/18
 Cleanup Method: EPA 3660B
 Cleanup Date: 12/30/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 11 Batch: WG1193825-1						
Aroclor 1016	ND		ug/l	0.083	0.034	A
Aroclor 1221	ND		ug/l	0.083	0.067	A
Aroclor 1232	ND		ug/l	0.083	0.046	A
Aroclor 1242	ND		ug/l	0.083	0.039	A
Aroclor 1248	ND		ug/l	0.083	0.049	A
Aroclor 1254	ND		ug/l	0.083	0.039	A
Aroclor 1260	ND		ug/l	0.083	0.032	A
Aroclor 1262	ND		ug/l	0.083	0.035	A
Aroclor 1268	ND		ug/l	0.083	0.034	A
PCBs, Total	ND		ug/l	0.083	0.032	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	85		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-09 Batch: WG1193423-2 WG1193423-3									
Aroclor 1016	65		71		40-140	9		50	A
Aroclor 1260	54		59		40-140	9		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		73		30-150	A
Decachlorobiphenyl	61		64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		73		30-150	B
Decachlorobiphenyl	64		66		30-150	B



Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 11 Batch: WG1193825-2 WG1193825-3									
Aroclor 1016	74		72		40-140	2		50	A
Aroclor 1260	76		77		40-140	1		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		78		30-150	A
Decachlorobiphenyl	80		81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	85		82		30-150	B
Decachlorobiphenyl	86		87		30-150	B



Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1193423-4 WG1193423-5 QC Sample: L1853234-03 Client ID: RB01_25-27													
Aroclor 1016	ND	335	303	91		337	101		40-140	11		50	A
Aroclor 1260	ND	335	194	58		185	56		40-140	5		50	A

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
2,4,5,6-Tetrachloro-m-xylene	53		51		30-150	A
Decachlorobiphenyl	53		55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	54		60		30-150	B
Decachlorobiphenyl	57		60		30-150	B

PESTICIDES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-01
 Client ID: RB01_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:30
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/02/19 11:22
 Analyst: BM
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 10:00
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.90	0.371	1	A
Lindane	ND		ug/kg	0.790	0.353	1	A
Alpha-BHC	ND		ug/kg	0.790	0.224	1	A
Beta-BHC	ND		ug/kg	1.90	0.719	1	A
Heptachlor	ND		ug/kg	0.948	0.425	1	A
Aldrin	ND		ug/kg	1.90	0.668	1	A
Heptachlor epoxide	ND		ug/kg	3.56	1.07	1	A
Endrin	ND		ug/kg	0.790	0.324	1	A
Endrin aldehyde	ND		ug/kg	2.37	0.830	1	A
Endrin ketone	ND		ug/kg	1.90	0.488	1	A
Dieldrin	ND		ug/kg	1.18	0.593	1	A
4,4'-DDE	ND		ug/kg	1.90	0.438	1	A
4,4'-DDD	ND		ug/kg	1.90	0.676	1	A
4,4'-DDT	ND		ug/kg	3.56	1.52	1	A
Endosulfan I	ND		ug/kg	1.90	0.448	1	A
Endosulfan II	1.69	JIP	ug/kg	1.90	0.634	1	A
Endosulfan sulfate	ND		ug/kg	0.790	0.376	1	A
Methoxychlor	ND		ug/kg	3.56	1.11	1	A
Toxaphene	ND		ug/kg	35.6	9.96	1	A
cis-Chlordane	ND		ug/kg	2.37	0.661	1	A
trans-Chlordane	ND		ug/kg	2.37	0.626	1	A
Chlordane	ND		ug/kg	15.4	6.28	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-01

Date Collected: 12/27/18 09:30

Client ID: RB01_0-2

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	102		30-150	B
2,4,5,6-Tetrachloro-m-xylene	183	Q	30-150	A
Decachlorobiphenyl	114		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-01
 Client ID: RB01_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:30
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 02:56
 Analyst: DGM
 Percent Solids: 83%
 Methylation Date: 12/29/18 17:43

Extraction Method: EPA 8151A
 Extraction Date: 12/28/18 15:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	199	12.5	1	B
2,4,5-T	ND		ug/kg	199	6.16	1	B
2,4,5-TP (Silvex)	ND		ug/kg	199	5.29	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	131		30-150	A
DCAA	122		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-02
 Client ID: RB01_14-15
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:40
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 03:14
 Analyst: DGM
 Percent Solids: 63%
 Methylation Date: 12/30/18 02:26

Extraction Method: EPA 8151A
 Extraction Date: 12/28/18 15:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	264	16.6	1	B
2,4,5-T	ND		ug/kg	264	8.18	1	B
2,4,5-TP (Silvex)	ND		ug/kg	264	7.02	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	124		30-150	A
DCAA	109		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-02 D
 Client ID: RB01_14-15
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:40
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/04/19 11:11
 Analyst: KEG
 Percent Solids: 63%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 10:00
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	24.5	4.81	10	A
Lindane	ND		ug/kg	10.2	4.57	10	A
Alpha-BHC	ND		ug/kg	10.2	2.90	10	A
Beta-BHC	ND		ug/kg	24.5	9.31	10	A
Heptachlor	ND		ug/kg	12.3	5.50	10	A
Aldrin	ND		ug/kg	24.5	8.64	10	A
Heptachlor epoxide	ND		ug/kg	46.0	13.8	10	A
Endrin	ND		ug/kg	10.2	4.19	10	A
Endrin aldehyde	ND		ug/kg	30.7	10.7	10	A
Endrin ketone	ND		ug/kg	24.5	6.32	10	A
Dieldrin	ND	IP	ug/kg	15.3	7.67	10	A
4,4'-DDE	ND		ug/kg	24.5	5.68	10	A
4,4'-DDD	ND		ug/kg	24.5	8.75	10	A
4,4'-DDT	ND		ug/kg	46.0	19.7	10	A
Endosulfan I	ND		ug/kg	24.5	5.80	10	A
Endosulfan II	ND		ug/kg	24.5	8.20	10	A
Endosulfan sulfate	ND		ug/kg	10.2	4.87	10	A
Methoxychlor	ND		ug/kg	46.0	14.3	10	A
Toxaphene	ND		ug/kg	460	129.	10	A
cis-Chlordane	ND		ug/kg	30.7	8.55	10	A
trans-Chlordane	ND		ug/kg	30.7	8.10	10	A
Chlordane	ND		ug/kg	199	81.3	10	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-02 D

Date Collected: 12/27/18 09:40

Client ID: RB01_14-15

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	101		30-150	B
Decachlorobiphenyl	130		30-150	B
2,4,5,6-Tetrachloro-m-xylene	7680	Q	30-150	A
Decachlorobiphenyl	242	Q	30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-03
 Client ID: RB01_25-27
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 12/29/18 15:14
 Analyst: BM
 Percent Solids: 60%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 10:00
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.50	0.490	1	A
Lindane	ND		ug/kg	1.04	0.466	1	A
Alpha-BHC	ND		ug/kg	1.04	0.296	1	A
Beta-BHC	ND		ug/kg	2.50	0.948	1	A
Heptachlor	ND		ug/kg	1.25	0.560	1	A
Aldrin	ND		ug/kg	2.50	0.880	1	A
Heptachlor epoxide	ND		ug/kg	4.69	1.41	1	A
Endrin	ND		ug/kg	1.04	0.427	1	A
Endrin aldehyde	ND		ug/kg	3.12	1.09	1	A
Endrin ketone	ND		ug/kg	2.50	0.644	1	A
Dieldrin	ND		ug/kg	1.56	0.781	1	A
4,4'-DDE	ND		ug/kg	2.50	0.578	1	A
4,4'-DDD	ND		ug/kg	2.50	0.892	1	A
4,4'-DDT	2.79	J	ug/kg	4.69	2.01	1	A
Endosulfan I	ND		ug/kg	2.50	0.591	1	A
Endosulfan II	ND		ug/kg	2.50	0.835	1	A
Endosulfan sulfate	ND		ug/kg	1.04	0.496	1	A
Methoxychlor	ND		ug/kg	4.69	1.46	1	A
Toxaphene	ND		ug/kg	46.9	13.1	1	A
cis-Chlordane	ND		ug/kg	3.12	0.871	1	A
trans-Chlordane	ND		ug/kg	3.12	0.825	1	A
Chlordane	ND		ug/kg	20.3	8.28	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-03

Date Collected: 12/27/18 09:45

Client ID: RB01_25-27

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	73		30-150	B
2,4,5,6-Tetrachloro-m-xylene	1270	Q	30-150	A
Decachlorobiphenyl	60		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-03
 Client ID: RB01_25-27
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 01:59
 Analyst: DGM
 Percent Solids: 60%
 Methylation Date: 12/30/18 02:26

Extraction Method: EPA 8151A
 Extraction Date: 12/28/18 15:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	272	17.1	1	B
2,4,5-T	ND		ug/kg	272	8.42	1	B
2,4,5-TP (Silvex)	ND		ug/kg	272	7.23	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	122		30-150	A
DCAA	102		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-04
 Client ID: RB08_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/02/19 11:48
 Analyst: BM
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 10:00
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.78	0.348	1	A
Lindane	ND		ug/kg	0.740	0.331	1	A
Alpha-BHC	ND		ug/kg	0.740	0.210	1	A
Beta-BHC	ND		ug/kg	1.78	0.673	1	A
Heptachlor	ND		ug/kg	0.888	0.398	1	A
Aldrin	ND		ug/kg	1.78	0.625	1	A
Heptachlor epoxide	ND		ug/kg	3.33	0.999	1	A
Endrin	ND		ug/kg	0.740	0.303	1	A
Endrin aldehyde	ND		ug/kg	2.22	0.777	1	A
Endrin ketone	ND		ug/kg	1.78	0.457	1	A
Dieldrin	ND		ug/kg	1.11	0.555	1	A
4,4'-DDE	2.06	IP	ug/kg	1.78	0.411	1	A
4,4'-DDD	ND		ug/kg	1.78	0.633	1	A
4,4'-DDT	13.3	IP	ug/kg	3.33	1.43	1	A
Endosulfan I	ND		ug/kg	1.78	0.420	1	A
Endosulfan II	ND		ug/kg	1.78	0.593	1	A
Endosulfan sulfate	ND		ug/kg	0.740	0.352	1	A
Methoxychlor	ND		ug/kg	3.33	1.04	1	A
Toxaphene	ND		ug/kg	33.3	9.32	1	A
cis-Chlordane	2.38	IP	ug/kg	2.22	0.618	1	B
trans-Chlordane	ND		ug/kg	2.22	0.586	1	A
Chlordane	ND		ug/kg	14.4	5.88	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-04

Date Collected: 12/27/18 12:45

Client ID: RB08_0-2

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	110		30-150	B
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	75		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-04
 Client ID: RB08_0-2
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 03:33
 Analyst: DGM
 Percent Solids: 88%
 Methylation Date: 12/30/18 02:26

Extraction Method: EPA 8151A
 Extraction Date: 12/28/18 15:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	184	11.6	1	B
2,4,5-T	ND		ug/kg	184	5.71	1	B
2,4,5-TP (Silvex)	ND		ug/kg	184	4.90	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	123		30-150	A
DCAA	117		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-05
 Client ID: RB08_10-12
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:50
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/02/19 12:00
 Analyst: BM
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 10:00
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.74	0.342	1	A
Lindane	ND		ug/kg	0.727	0.325	1	A
Alpha-BHC	ND		ug/kg	0.727	0.206	1	A
Beta-BHC	ND		ug/kg	1.74	0.662	1	A
Heptachlor	ND		ug/kg	0.872	0.391	1	A
Aldrin	ND		ug/kg	1.74	0.614	1	A
Heptachlor epoxide	ND		ug/kg	3.27	0.982	1	A
Endrin	ND		ug/kg	0.727	0.298	1	A
Endrin aldehyde	ND		ug/kg	2.18	0.763	1	A
Endrin ketone	ND		ug/kg	1.74	0.449	1	A
Dieldrin	ND		ug/kg	1.09	0.545	1	A
4,4'-DDE	ND		ug/kg	1.74	0.404	1	A
4,4'-DDD	ND		ug/kg	1.74	0.622	1	A
4,4'-DDT	3.66		ug/kg	3.27	1.40	1	A
Endosulfan I	ND		ug/kg	1.74	0.412	1	A
Endosulfan II	ND		ug/kg	1.74	0.583	1	A
Endosulfan sulfate	ND		ug/kg	0.727	0.346	1	A
Methoxychlor	ND		ug/kg	3.27	1.02	1	A
Toxaphene	ND		ug/kg	32.7	9.16	1	A
cis-Chlordane	ND		ug/kg	2.18	0.608	1	A
trans-Chlordane	ND		ug/kg	2.18	0.576	1	A
Chlordane	ND		ug/kg	14.2	5.78	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-05

Date Collected: 12/27/18 12:50

Client ID: RB08_10-12

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	62		30-150	B
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	59		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-05
 Client ID: RB08_10-12
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:50
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 03:52
 Analyst: DGM
 Percent Solids: 87%
 Methylation Date: 12/30/18 02:26

Extraction Method: EPA 8151A
 Extraction Date: 12/28/18 15:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	188	11.8	1	B
2,4,5-T	ND		ug/kg	188	5.81	1	B
2,4,5-TP (Silvex)	ND		ug/kg	188	4.99	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	137		30-150	A
DCAA	110		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-06
 Client ID: RB08_12-14
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:55
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/02/19 12:13
 Analyst: BM
 Percent Solids: 84%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 10:00
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.84	0.360	1	A
Lindane	ND		ug/kg	0.765	0.342	1	A
Alpha-BHC	ND		ug/kg	0.765	0.217	1	A
Beta-BHC	ND		ug/kg	1.84	0.696	1	A
Heptachlor	ND		ug/kg	0.918	0.412	1	A
Aldrin	ND		ug/kg	1.84	0.646	1	A
Heptachlor epoxide	ND		ug/kg	3.44	1.03	1	A
Endrin	ND		ug/kg	0.765	0.314	1	A
Endrin aldehyde	ND		ug/kg	2.29	0.803	1	A
Endrin ketone	ND		ug/kg	1.84	0.473	1	A
Dieldrin	ND		ug/kg	1.15	0.574	1	A
4,4'-DDE	ND		ug/kg	1.84	0.424	1	A
4,4'-DDD	ND		ug/kg	1.84	0.655	1	A
4,4'-DDT	ND		ug/kg	3.44	1.48	1	A
Endosulfan I	ND		ug/kg	1.84	0.434	1	A
Endosulfan II	ND		ug/kg	1.84	0.613	1	A
Endosulfan sulfate	ND		ug/kg	0.765	0.364	1	A
Methoxychlor	ND		ug/kg	3.44	1.07	1	A
Toxaphene	ND		ug/kg	34.4	9.64	1	A
cis-Chlordane	ND		ug/kg	2.29	0.639	1	A
trans-Chlordane	ND		ug/kg	2.29	0.606	1	A
Chlordane	ND		ug/kg	14.9	6.08	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-06
 Client ID: RB08_12-14
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:55
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	43		30-150	B
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	64		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-06
 Client ID: RB08_12-14
 Sample Location: BRONX, NY

Date Collected: 12/27/18 12:55
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 04:11
 Analyst: DGM
 Percent Solids: 84%
 Methylation Date: 12/30/18 02:26

Extraction Method: EPA 8151A
 Extraction Date: 12/28/18 15:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	196	12.4	1	B
2,4,5-T	ND		ug/kg	196	6.08	1	B
2,4,5-TP (Silvex)	ND		ug/kg	196	5.22	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	99		30-150	A
DCAA	86		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-07
 Client ID: RB08_14-16
 Sample Location: BRONX, NY

Date Collected: 12/27/18 13:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/02/19 12:26
 Analyst: BM
 Percent Solids: 68%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 10:00
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.23	0.436	1	A
Lindane	ND		ug/kg	0.928	0.415	1	A
Alpha-BHC	ND		ug/kg	0.928	0.264	1	A
Beta-BHC	ND		ug/kg	2.23	0.845	1	A
Heptachlor	ND		ug/kg	1.11	0.499	1	A
Aldrin	ND		ug/kg	2.23	0.784	1	A
Heptachlor epoxide	ND		ug/kg	4.18	1.25	1	A
Endrin	ND		ug/kg	0.928	0.380	1	A
Endrin aldehyde	ND		ug/kg	2.78	0.975	1	A
Endrin ketone	ND		ug/kg	2.23	0.574	1	A
Dieldrin	ND		ug/kg	1.39	0.696	1	A
4,4'-DDE	ND		ug/kg	2.23	0.515	1	A
4,4'-DDD	ND		ug/kg	2.23	0.794	1	A
4,4'-DDT	ND		ug/kg	4.18	1.79	1	A
Endosulfan I	ND		ug/kg	2.23	0.526	1	A
Endosulfan II	ND		ug/kg	2.23	0.744	1	A
Endosulfan sulfate	ND		ug/kg	0.928	0.442	1	A
Methoxychlor	ND		ug/kg	4.18	1.30	1	A
Toxaphene	ND		ug/kg	41.8	11.7	1	A
cis-Chlordane	ND		ug/kg	2.78	0.776	1	A
trans-Chlordane	ND		ug/kg	2.78	0.735	1	A
Chlordane	ND		ug/kg	18.1	7.38	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-07
 Client ID: RB08_14-16
 Sample Location: BRONX, NY

Date Collected: 12/27/18 13:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	64		30-150	B
2,4,5,6-Tetrachloro-m-xylene	1610	Q	30-150	A
Decachlorobiphenyl	59		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-07
 Client ID: RB08_14-16
 Sample Location: BRONX, NY

Date Collected: 12/27/18 13:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 04:30
 Analyst: DGM
 Percent Solids: 68%
 Methylation Date: 12/30/18 02:26

Extraction Method: EPA 8151A
 Extraction Date: 12/28/18 15:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	244	15.3	1	B
2,4,5-T	ND		ug/kg	244	7.55	1	B
2,4,5-TP (Silvex)	ND		ug/kg	244	6.48	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	106		30-150	A
DCAA	87		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-08
 Client ID: SODUP02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/02/19 12:39
 Analyst: BM
 Percent Solids: 72%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 10:00
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.17	0.425	1	A
Lindane	ND		ug/kg	0.903	0.404	1	A
Alpha-BHC	ND		ug/kg	0.903	0.256	1	A
Beta-BHC	ND		ug/kg	2.17	0.822	1	A
Heptachlor	ND		ug/kg	1.08	0.486	1	A
Aldrin	ND		ug/kg	2.17	0.763	1	A
Heptachlor epoxide	ND		ug/kg	4.06	1.22	1	A
Endrin	ND		ug/kg	0.903	0.370	1	A
Endrin aldehyde	ND		ug/kg	2.71	0.948	1	A
Endrin ketone	ND		ug/kg	2.17	0.558	1	A
Dieldrin	ND		ug/kg	1.36	0.678	1	A
4,4'-DDE	ND		ug/kg	2.17	0.501	1	A
4,4'-DDD	ND		ug/kg	2.17	0.773	1	A
4,4'-DDT	ND		ug/kg	4.06	1.74	1	A
Endosulfan I	ND		ug/kg	2.17	0.512	1	A
Endosulfan II	ND		ug/kg	2.17	0.724	1	A
Endosulfan sulfate	ND		ug/kg	0.903	0.430	1	A
Methoxychlor	ND		ug/kg	4.06	1.26	1	A
Toxaphene	ND		ug/kg	40.6	11.4	1	A
cis-Chlordane	ND		ug/kg	2.71	0.755	1	A
trans-Chlordane	ND		ug/kg	2.71	0.716	1	A
Chlordane	ND		ug/kg	17.6	7.18	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-08
 Client ID: SODUP02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	53		30-150	B
Decachlorobiphenyl	47		30-150	B
2,4,5,6-Tetrachloro-m-xylene	1270	Q	30-150	A
Decachlorobiphenyl	58		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-08
 Client ID: SODUP02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 04:49
 Analyst: DGM
 Percent Solids: 72%
 Methylation Date: 12/30/18 02:26

Extraction Method: EPA 8151A
 Extraction Date: 12/28/18 15:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	228	14.4	1	B
2,4,5-T	ND		ug/kg	228	7.07	1	B
2,4,5-TP (Silvex)	ND		ug/kg	228	6.06	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	93		30-150	A
DCAA	80		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-09
 Client ID: RB01_9-11
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:35
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 05:26
 Analyst: DGM
 Percent Solids: 87%
 Methylation Date: 12/30/18 02:26

Extraction Method: EPA 8151A
 Extraction Date: 12/28/18 15:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	187	11.8	1	B
2,4,5-T	ND		ug/kg	187	5.80	1	B
2,4,5-TP (Silvex)	ND		ug/kg	187	4.97	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	44		30-150	A
DCAA	11	Q	30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-09 D
 Client ID: RB01_9-11
 Sample Location: BRONX, NY

Date Collected: 12/27/18 09:35
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/04/19 11:23
 Analyst: KEG
 Percent Solids: 87%

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 10:00
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	34.8	6.81	20	A
Lindane	ND		ug/kg	14.5	6.48	20	A
Alpha-BHC	ND		ug/kg	14.5	4.12	20	A
Beta-BHC	ND		ug/kg	34.8	13.2	20	A
Heptachlor	ND		ug/kg	17.4	7.80	20	A
Aldrin	ND		ug/kg	34.8	12.2	20	A
Heptachlor epoxide	ND		ug/kg	65.2	19.6	20	A
Endrin	ND		ug/kg	14.5	5.94	20	A
Endrin aldehyde	ND		ug/kg	43.5	15.2	20	A
Endrin ketone	ND		ug/kg	34.8	8.96	20	A
Dieldrin	ND		ug/kg	21.7	10.9	20	A
4,4'-DDE	ND		ug/kg	34.8	8.05	20	A
4,4'-DDD	ND		ug/kg	34.8	12.4	20	A
4,4'-DDT	ND		ug/kg	65.2	28.0	20	A
Endosulfan I	ND		ug/kg	34.8	8.22	20	A
Endosulfan II	ND		ug/kg	34.8	11.6	20	A
Endosulfan sulfate	ND		ug/kg	14.5	6.90	20	A
Methoxychlor	ND		ug/kg	65.2	20.3	20	A
Toxaphene	ND		ug/kg	652	183.	20	A
cis-Chlordane	ND		ug/kg	43.5	12.1	20	A
trans-Chlordane	ND		ug/kg	43.5	11.5	20	A
Chlordane	ND		ug/kg	283	115.	20	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-09 D

Date Collected: 12/27/18 09:35

Client ID: RB01_9-11

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-11
 Client ID: SOFB02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 10:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 12/30/18 18:13
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 12/30/18 07:08

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-11
 Client ID: SOFB02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 10:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	54		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-11
 Client ID: SOFB02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 10:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 12/31/18 00:25
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 12/28/18 15:07

Methylation Date: 12/29/18 17:41

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	103		30-150	A
DCAA	85		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8151A
 Analytical Date: 01/02/19 12:35
 Analyst: KEG

Extraction Method: EPA 8151A
 Extraction Date: 12/27/18 15:31

Methylation Date: 12/28/18 08:56

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 11 Batch: WG1193192-1						
2,4-D	ND		ug/l	10.0	0.498	A
2,4,5-T	ND		ug/l	2.00	0.531	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	116		30-150	A
DCAA	89		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 12/29/18 14:10
Analyst: BM

Extraction Method: EPA 3546
Extraction Date: 12/28/18 10:00
Cleanup Method: EPA 3620B
Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-09 Batch: WG1193469-1						
Delta-BHC	ND		ug/kg	1.58	0.310	A
Lindane	ND		ug/kg	0.659	0.294	A
Alpha-BHC	ND		ug/kg	0.659	0.187	A
Beta-BHC	ND		ug/kg	1.58	0.599	A
Heptachlor	ND		ug/kg	0.790	0.354	A
Aldrin	ND		ug/kg	1.58	0.557	A
Heptachlor epoxide	ND		ug/kg	2.96	0.889	A
Endrin	ND		ug/kg	0.659	0.270	A
Endrin aldehyde	ND		ug/kg	1.98	0.692	A
Endrin ketone	ND		ug/kg	1.58	0.407	A
Dieldrin	ND		ug/kg	0.988	0.494	A
4,4'-DDE	ND		ug/kg	1.58	0.366	A
4,4'-DDD	ND		ug/kg	1.58	0.564	A
4,4'-DDT	ND		ug/kg	2.96	1.27	A
Endosulfan I	ND		ug/kg	1.58	0.374	A
Endosulfan II	ND		ug/kg	1.58	0.528	A
Endosulfan sulfate	ND		ug/kg	0.659	0.314	A
Methoxychlor	ND		ug/kg	2.96	0.922	A
Toxaphene	ND		ug/kg	29.6	8.30	A
cis-Chlordane	ND		ug/kg	1.98	0.551	A
trans-Chlordane	ND		ug/kg	1.98	0.522	A
Chlordane	ND		ug/kg	12.8	5.24	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 12/29/18 14:10
 Analyst: BM

Extraction Method: EPA 3546
 Extraction Date: 12/28/18 10:00
 Cleanup Method: EPA 3620B
 Cleanup Date: 12/29/18

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-09 Batch: WG1193469-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	77		30-150	B
Decachlorobiphenyl	85		30-150	B
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	78		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
 Analytical Date: 12/31/18 00:44
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 12/28/18 15:49

Methylation Date: 12/29/18 17:43

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-09 Batch: WG1193627-1						
2,4-D	ND		ug/kg	164	10.3	B
2,4,5-T	ND		ug/kg	164	5.08	B
2,4,5-TP (Silvex)	ND		ug/kg	164	4.36	B

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	107		30-150	A
DCAA	87		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 12/30/18 17:22
Analyst: KEG

Extraction Method: EPA 3510C
Extraction Date: 12/30/18 07:08

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 11 Batch: WG1193824-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	ND		ug/l	0.014	0.002	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Endrin ketone	ND		ug/l	0.029	0.003	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A
4,4'-DDT	0.025	JIP	ug/l	0.029	0.003	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 12/30/18 17:22
 Analyst: KEG

Extraction Method: EPA 3510C
 Extraction Date: 12/30/18 07:08

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 11 Batch: WG1193824-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	61		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 11 Batch: WG1193192-2 WG1193192-3									
2,4-D	104		103		30-150	1		25	A
2,4,5-T	107		111		30-150	4		25	A
2,4,5-TP (Silvex)	101		100		30-150	1		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	115		115		30-150	A
DCAA	104		122		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-09 Batch: WG1193469-2 WG1193469-3									
Delta-BHC	92		82		30-150	11		30	A
Lindane	94		85		30-150	10		30	A
Alpha-BHC	99		90		30-150	10		30	A
Beta-BHC	98		84		30-150	15		30	A
Heptachlor	94		84		30-150	11		30	A
Aldrin	89		81		30-150	9		30	A
Heptachlor epoxide	91		83		30-150	9		30	A
Endrin	98		88		30-150	11		30	A
Endrin aldehyde	83		65		30-150	24		30	A
Endrin ketone	96		77		30-150	22		30	A
Dieldrin	106		95		30-150	11		30	A
4,4'-DDE	91		82		30-150	10		30	A
4,4'-DDD	97		87		30-150	11		30	A
4,4'-DDT	102		92		30-150	10		30	A
Endosulfan I	88		80		30-150	10		30	A
Endosulfan II	94		81		30-150	15		30	A
Endosulfan sulfate	75		59		30-150	24		30	A
Methoxychlor	107		94		30-150	13		30	A
cis-Chlordane	78		71		30-150	9		30	A
trans-Chlordane	79		76		30-150	4		30	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-09 Batch: WG1193469-2 WG1193469-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		78		30-150	B
Decachlorobiphenyl	89		87		30-150	B
2,4,5,6-Tetrachloro-m-xylene	76		68		30-150	A
Decachlorobiphenyl	81		81		30-150	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-09 Batch: WG1193627-2 WG1193627-3									
2,4-D	106		91		30-150	15		30	B
2,4,5-T	116		107		30-150	8		30	B
2,4,5-TP (Silvex)	99		91		30-150	8		30	B

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	122		112		30-150	A
DCAA	96		84		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 11 Batch: WG1193824-2 WG1193824-3									
Delta-BHC	79		83		30-150	5		20	A
Lindane	78		83		30-150	6		20	A
Alpha-BHC	82		86		30-150	5		20	A
Beta-BHC	72		80		30-150	10		20	A
Heptachlor	72		76		30-150	6		20	A
Aldrin	76		80		30-150	5		20	A
Heptachlor epoxide	77		83		30-150	7		20	A
Endrin	78		82		30-150	6		20	A
Endrin aldehyde	74		78		30-150	5		20	A
Endrin ketone	79		82		30-150	4		20	A
Dieldrin	83		88		30-150	5		20	A
4,4'-DDE	76		82		30-150	7		20	A
4,4'-DDD	76		81		30-150	6		20	A
4,4'-DDT	78		84		30-150	8		20	A
Endosulfan I	74		78		30-150	6		20	A
Endosulfan II	73		77		30-150	5		20	A
Endosulfan sulfate	69		73		30-150	6		20	A
Methoxychlor	87		90		30-150	4		20	A
cis-Chlordane	66		67		30-150	0		20	A
trans-Chlordane	73		78		30-150	6		20	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 11 Batch: WG1193824-2 WG1193824-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	64		67		30-150	A
Decachlorobiphenyl	38		38		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		74		30-150	B
Decachlorobiphenyl	42		41		30-150	B

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Organochlorine Pesticides by GC - Westborough Lab ID: RB01_25-27 Associated sample(s): 01-09 QC Batch ID: WG1193469-4 WG1193469-5 QC Sample: L1853234-03 Client													
Delta-BHC	ND	52.8	31.9	60		41.8	78		30-150	27		50	A
Lindane	ND	52.8	31.2	59		40.1	75		30-150	25		50	A
Alpha-BHC	ND	52.8	40.2	76		45.1	84		30-150	11		50	A
Beta-BHC	ND	52.8	21.8	41		34.7	65		30-150	46		50	A
Heptachlor	ND	52.8	43.2P	82		45.4	85		30-150	5		50	A
Aldrin	ND	52.8	43.0	81		50.0	93		30-150	15		50	A
Heptachlor epoxide	ND	52.8	33.2	63		41.8	78		30-150	23		50	A
Endrin	ND	52.8	43.7	83		52.9	98		30-150	19		50	A
Endrin aldehyde	ND	52.8	28.5	54		31.3	58		30-150	9		50	A
Endrin ketone	ND	52.8	32.3	61		36.4	68		30-150	12		50	A
Dieldrin	ND	52.8	44.6	84		49.0	91		30-150	9		50	A
4,4'-DDE	ND	52.8	25.7	49		35.4	66		30-150	32		50	A
4,4'-DDD	ND	52.8	40.5	77		45.6	85		30-150	12		50	A
4,4'-DDT	2.79J	52.8	34.8	66		40.7	76		30-150	16		50	A
Endosulfan I	ND	52.8	33.2	63		40.7	76		30-150	20		50	A
Endosulfan II	ND	52.8	35.3	67		43.5	81		30-150	21		50	A
Endosulfan sulfate	ND	52.8	21.6	41		31.2	58		30-150	36		50	A
Methoxychlor	ND	52.8	44.7	85		44.0	82		30-150	2		50	A
cis-Chlordane	ND	52.8	28.3	54		36.8	69		30-150	26		50	A
trans-Chlordane	ND	52.8	28.9	55		36.0	67		30-150	22		50	A

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1193469-4 WG1193469-5 QC Sample: L1853234-03 Client ID: RB01_25-27

<i>Surrogate</i>	<i>MS</i>		<i>MSD</i>		<i>Acceptance Criteria</i>	<i>Column</i>
	<i>% Recovery</i>	<i>Qualifier</i>	<i>% Recovery</i>	<i>Qualifier</i>		
2,4,5,6-Tetrachloro-m-xylene	56		65		30-150	B
Decachlorobiphenyl	61		72		30-150	B
2,4,5,6-Tetrachloro-m-xylene	1472	Q	2746	Q	30-150	A
Decachlorobiphenyl	73		64		30-150	A

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1193627-4 WG1193627-5 QC Sample: L1853234-03 Client ID: RB01_25-27													
2,4-D	ND	272	291	107		286	105		30-150	2		30	B
2,4,5-T	ND	272	338	124		334	122		30-150	1		30	B
2,4,5-TP (Silvex)	ND	272	273	101		270J	99		30-150	1		30	B

<i>Surrogate</i>	<i>MS</i>		<i>MSD</i>		<i>Acceptance Criteria</i>	<i>Column</i>
	<i>% Recovery</i>	<i>Qualifier</i>	<i>% Recovery</i>	<i>Qualifier</i>		
DCAA	135		126		30-150	A
DCAA	111		107		30-150	B

METALS

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-01

Date Collected: 12/27/18 09:30

Client ID: RB01_0-2

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	9400		mg/kg	9.22	2.49	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.61	0.350	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Arsenic, Total	43.7		mg/kg	0.922	0.192	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Barium, Total	591		mg/kg	0.922	0.160	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Beryllium, Total	ND		mg/kg	0.461	0.030	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Cadmium, Total	3.34		mg/kg	0.922	0.090	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Calcium, Total	32200		mg/kg	9.22	3.23	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Chromium, Total	51.9		mg/kg	0.922	0.089	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Cobalt, Total	11.3		mg/kg	1.84	0.153	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Copper, Total	275		mg/kg	0.922	0.238	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Iron, Total	21700		mg/kg	4.61	0.832	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Lead, Total	619		mg/kg	4.61	0.247	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Magnesium, Total	7590		mg/kg	9.22	1.42	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Manganese, Total	253		mg/kg	0.922	0.146	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Mercury, Total	0.536		mg/kg	0.076	0.016	1	12/28/18 06:30	01/03/19 21:36	EPA 7471B	1,7471B	EA
Nickel, Total	19.9		mg/kg	2.30	0.223	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Potassium, Total	5290		mg/kg	230	13.3	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Selenium, Total	1.95		mg/kg	1.84	0.238	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Silver, Total	1.74		mg/kg	0.922	0.261	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Sodium, Total	244		mg/kg	184	2.90	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.84	0.290	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Vanadium, Total	34.6		mg/kg	0.922	0.187	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
Zinc, Total	1080		mg/kg	4.61	0.270	2	12/28/18 17:48	12/29/18 05:30	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	52		mg/kg	0.96	0.96	1		12/29/18 05:30	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-02

Date Collected: 12/27/18 09:40

Client ID: RB01_14-15

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 63%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	8370		mg/kg	12.0	3.25	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	6.02	0.458	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Arsenic, Total	0.337	J	mg/kg	1.20	0.250	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Barium, Total	78.3		mg/kg	1.20	0.210	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Beryllium, Total	0.048	J	mg/kg	0.602	0.040	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Cadmium, Total	0.217	J	mg/kg	1.20	0.118	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Calcium, Total	3350		mg/kg	12.0	4.22	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Chromium, Total	20.6		mg/kg	1.20	0.116	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Cobalt, Total	9.48		mg/kg	2.41	0.200	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Copper, Total	22.8		mg/kg	1.20	0.311	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Iron, Total	16000		mg/kg	6.02	1.09	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Lead, Total	19.7		mg/kg	6.02	0.323	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Magnesium, Total	3840		mg/kg	12.0	1.86	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Manganese, Total	225		mg/kg	1.20	0.192	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Mercury, Total	0.131		mg/kg	0.102	0.022	1	12/28/18 06:30	01/03/19 21:37	EPA 7471B	1,7471B	EA
Nickel, Total	23.4		mg/kg	3.01	0.292	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Potassium, Total	3340		mg/kg	301	17.3	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Selenium, Total	0.626	J	mg/kg	2.41	0.311	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	1.20	0.341	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Sodium, Total	323		mg/kg	241	3.79	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	2.41	0.379	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Vanadium, Total	24.3		mg/kg	1.20	0.244	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
Zinc, Total	40.9		mg/kg	6.02	0.353	2	12/28/18 17:48	12/29/18 05:35	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	21		mg/kg	1.3	1.3	1		12/29/18 05:35	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-03

Date Collected: 12/27/18 09:45

Client ID: RB01_25-27

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 60%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	13200		mg/kg	13.2	3.57	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	6.62	0.503	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Arsenic, Total	6.94		mg/kg	1.32	0.275	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Barium, Total	28.4		mg/kg	1.32	0.230	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Beryllium, Total	0.516	J	mg/kg	0.662	0.044	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Cadmium, Total	0.503	J	mg/kg	1.32	0.130	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Calcium, Total	2740		mg/kg	13.2	4.63	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Chromium, Total	28.8		mg/kg	1.32	0.127	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Cobalt, Total	9.66		mg/kg	2.65	0.220	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Copper, Total	12.5		mg/kg	1.32	0.341	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Iron, Total	26800		mg/kg	6.62	1.20	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Lead, Total	23.5		mg/kg	6.62	0.355	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Magnesium, Total	6200		mg/kg	13.2	2.04	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Manganese, Total	349		mg/kg	1.32	0.210	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Mercury, Total	0.032	J	mg/kg	0.105	0.022	1	12/28/18 06:30	01/03/19 21:27	EPA 7471B	1,7471B	EA
Nickel, Total	20.2		mg/kg	3.31	0.320	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Potassium, Total	2880		mg/kg	331	19.0	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Selenium, Total	1.06	J	mg/kg	2.65	0.341	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	1.32	0.374	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Sodium, Total	701		mg/kg	265	4.17	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	2.65	0.417	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Vanadium, Total	36.3		mg/kg	1.32	0.269	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
Zinc, Total	69.5		mg/kg	6.62	0.388	2	12/28/18 17:48	12/29/18 03:49	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	29		mg/kg	1.3	1.3	1		12/29/18 03:49	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-04

Date Collected: 12/27/18 12:45

Client ID: RB08_0-2

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4610		mg/kg	8.55	2.31	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.28	0.325	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Arsenic, Total	7.20		mg/kg	0.855	0.178	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Barium, Total	1460		mg/kg	0.855	0.149	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Beryllium, Total	ND		mg/kg	0.428	0.028	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Cadmium, Total	5.19		mg/kg	0.855	0.084	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Calcium, Total	37000		mg/kg	8.55	2.99	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Chromium, Total	15.4		mg/kg	0.855	0.082	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Cobalt, Total	4.93		mg/kg	1.71	0.142	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Copper, Total	19.3		mg/kg	0.855	0.221	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Iron, Total	8200		mg/kg	4.28	0.772	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Lead, Total	753		mg/kg	4.28	0.229	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Magnesium, Total	3810		mg/kg	8.55	1.32	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Manganese, Total	220		mg/kg	0.855	0.136	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Mercury, Total	0.213		mg/kg	0.071	0.015	1	12/28/18 06:30	01/03/19 21:39	EPA 7471B	1,7471B	EA
Nickel, Total	7.02		mg/kg	2.14	0.207	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Potassium, Total	1520		mg/kg	214	12.3	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Selenium, Total	0.428	J	mg/kg	1.71	0.221	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.855	0.242	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Sodium, Total	240		mg/kg	171	2.69	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.71	0.269	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Vanadium, Total	20.9		mg/kg	0.855	0.174	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
Zinc, Total	2990		mg/kg	4.28	0.251	2	12/28/18 17:48	12/29/18 05:39	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	15		mg/kg	0.91	0.91	1		12/29/18 05:39	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-05

Date Collected: 12/27/18 12:50

Client ID: RB08_10-12

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5340		mg/kg	8.91	2.40	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.45	0.338	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Arsenic, Total	4.90		mg/kg	0.891	0.185	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Barium, Total	661		mg/kg	0.891	0.155	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Beryllium, Total	0.089	J	mg/kg	0.445	0.029	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Cadmium, Total	0.712	J	mg/kg	0.891	0.087	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Calcium, Total	44700		mg/kg	8.91	3.12	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Chromium, Total	18.0		mg/kg	0.891	0.086	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Cobalt, Total	5.75		mg/kg	1.78	0.148	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Copper, Total	23.4		mg/kg	0.891	0.230	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Iron, Total	11800		mg/kg	4.45	0.804	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Lead, Total	229		mg/kg	4.45	0.239	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Magnesium, Total	4440		mg/kg	8.91	1.37	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Manganese, Total	200		mg/kg	0.891	0.142	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Mercury, Total	0.177		mg/kg	0.072	0.015	1	12/28/18 06:30	01/03/19 21:46	EPA 7471B	1,7471B	EA
Nickel, Total	11.2		mg/kg	2.23	0.216	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Potassium, Total	1590		mg/kg	223	12.8	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Selenium, Total	ND		mg/kg	1.78	0.230	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Silver, Total	0.338	J	mg/kg	0.891	0.252	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Sodium, Total	287		mg/kg	178	2.80	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.78	0.280	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Vanadium, Total	23.8		mg/kg	0.891	0.181	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
Zinc, Total	439		mg/kg	4.45	0.261	2	12/28/18 17:48	12/29/18 05:44	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	18		mg/kg	0.92	0.92	1		12/29/18 05:44	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-06

Date Collected: 12/27/18 12:55

Client ID: RB08_12-14

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	9200		mg/kg	9.00	2.43	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.50	0.342	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Arsenic, Total	2.24		mg/kg	0.900	0.187	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Barium, Total	112		mg/kg	0.900	0.156	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Beryllium, Total	0.117	J	mg/kg	0.450	0.030	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Cadmium, Total	0.333	J	mg/kg	0.900	0.088	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Calcium, Total	12000		mg/kg	9.00	3.15	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Chromium, Total	18.1		mg/kg	0.900	0.086	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Cobalt, Total	9.87		mg/kg	1.80	0.149	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Copper, Total	23.9		mg/kg	0.900	0.232	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Iron, Total	18600		mg/kg	4.50	0.813	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Lead, Total	160		mg/kg	4.50	0.241	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Magnesium, Total	4260		mg/kg	9.00	1.38	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Manganese, Total	370		mg/kg	0.900	0.143	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Mercury, Total	0.364		mg/kg	0.076	0.016	1	12/28/18 06:30	01/03/19 21:47	EPA 7471B	1,7471B	EA
Nickel, Total	16.6		mg/kg	2.25	0.218	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Potassium, Total	3020		mg/kg	225	13.0	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Selenium, Total	0.504	J	mg/kg	1.80	0.232	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.900	0.255	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Sodium, Total	89.7	J	mg/kg	180	2.83	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.80	0.283	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Vanadium, Total	28.3		mg/kg	0.900	0.183	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
Zinc, Total	85.2		mg/kg	4.50	0.264	2	12/28/18 17:48	12/29/18 05:49	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	18		mg/kg	0.96	0.96	1		12/29/18 05:49	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-07

Date Collected: 12/27/18 13:00

Client ID: RB08_14-16

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 68%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	11000		mg/kg	11.7	3.15	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	5.83	0.443	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Arsenic, Total	7.97		mg/kg	1.17	0.243	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Barium, Total	40.4		mg/kg	1.17	0.203	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Beryllium, Total	0.443	J	mg/kg	0.583	0.039	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Cadmium, Total	0.455	J	mg/kg	1.17	0.114	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Calcium, Total	2860		mg/kg	11.7	4.08	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Chromium, Total	24.1		mg/kg	1.17	0.112	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Cobalt, Total	7.78		mg/kg	2.33	0.194	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Copper, Total	19.2		mg/kg	1.17	0.301	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Iron, Total	22100		mg/kg	5.83	1.05	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Lead, Total	53.6		mg/kg	5.83	0.313	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Magnesium, Total	5030		mg/kg	11.7	1.80	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Manganese, Total	299		mg/kg	1.17	0.186	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Mercury, Total	1.45		mg/kg	0.094	0.020	1	12/28/18 06:30	01/03/19 21:49	EPA 7471B	1,7471B	EA
Nickel, Total	17.2		mg/kg	2.92	0.282	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Potassium, Total	2240		mg/kg	292	16.8	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Selenium, Total	0.607	J	mg/kg	2.33	0.301	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	1.17	0.330	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Sodium, Total	386		mg/kg	233	3.68	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	2.33	0.368	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Vanadium, Total	28.4		mg/kg	1.17	0.237	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
Zinc, Total	73.4		mg/kg	5.83	0.342	2	12/28/18 17:48	12/29/18 05:53	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	24		mg/kg	1.2	1.2	1		12/29/18 05:53	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-08
 Client ID: SODUP02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 00:00
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 72%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	10400		mg/kg	10.6	2.87	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	5.32	0.404	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Arsenic, Total	6.46		mg/kg	1.06	0.221	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Barium, Total	51.6		mg/kg	1.06	0.185	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Beryllium, Total	0.361	J	mg/kg	0.532	0.035	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Cadmium, Total	0.415	J	mg/kg	1.06	0.104	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Calcium, Total	5700		mg/kg	10.6	3.72	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Chromium, Total	23.9		mg/kg	1.06	0.102	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Cobalt, Total	7.84		mg/kg	2.13	0.176	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Copper, Total	23.8		mg/kg	1.06	0.274	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Iron, Total	19700		mg/kg	5.32	0.960	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Lead, Total	71.3		mg/kg	5.32	0.285	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Magnesium, Total	4740		mg/kg	10.6	1.64	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Manganese, Total	258		mg/kg	1.06	0.169	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Mercury, Total	0.125		mg/kg	0.087	0.018	1	12/28/18 06:30	01/03/19 21:51	EPA 7471B	1,7471B	EA
Nickel, Total	18.4		mg/kg	2.66	0.257	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Potassium, Total	2340		mg/kg	266	15.3	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Selenium, Total	0.999	J	mg/kg	2.13	0.274	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	1.06	0.301	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Sodium, Total	351		mg/kg	213	3.35	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	2.13	0.335	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Vanadium, Total	27.0		mg/kg	1.06	0.216	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
Zinc, Total	96.3		mg/kg	5.32	0.311	2	12/28/18 17:48	12/29/18 05:58	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	24		mg/kg	1.1	1.1	1		12/29/18 05:58	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-09

Date Collected: 12/27/18 09:35

Client ID: RB01_9-11

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 87%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	9740		mg/kg	8.93	2.41	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.46	0.339	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Arsenic, Total	3.88		mg/kg	0.893	0.186	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Barium, Total	92.0		mg/kg	0.893	0.155	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Beryllium, Total	0.170	J	mg/kg	0.446	0.030	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Cadmium, Total	0.402	J	mg/kg	0.893	0.088	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Calcium, Total	13300		mg/kg	8.93	3.12	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Chromium, Total	19.6		mg/kg	0.893	0.086	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Cobalt, Total	9.06		mg/kg	1.79	0.148	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Copper, Total	88.4		mg/kg	0.893	0.230	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Iron, Total	18800		mg/kg	4.46	0.806	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Lead, Total	134		mg/kg	4.46	0.239	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Magnesium, Total	4520		mg/kg	8.93	1.38	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Manganese, Total	234		mg/kg	0.893	0.142	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Mercury, Total	0.262		mg/kg	0.072	0.015	1	12/28/18 06:30	01/03/19 21:53	EPA 7471B	1,7471B	EA
Nickel, Total	19.8		mg/kg	2.23	0.216	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Potassium, Total	2880		mg/kg	223	12.9	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Selenium, Total	1.03	J	mg/kg	1.79	0.230	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.893	0.253	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Sodium, Total	209		mg/kg	179	2.81	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.79	0.281	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Vanadium, Total	23.7		mg/kg	0.893	0.181	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
Zinc, Total	216		mg/kg	4.46	0.262	2	12/28/18 17:48	12/29/18 06:02	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	20		mg/kg	0.92	0.92	1		12/29/18 06:02	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-11
 Client ID: SOFB02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 10:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.100	0.032	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Antimony, Total	ND		mg/l	0.050	0.007	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Arsenic, Total	ND		mg/l	0.005	0.002	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Barium, Total	0.002	J	mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Beryllium, Total	ND		mg/l	0.005	0.001	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Cadmium, Total	ND		mg/l	0.005	0.001	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Calcium, Total	ND		mg/l	0.100	0.035	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Chromium, Total	0.003	J	mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Cobalt, Total	ND		mg/l	0.020	0.002	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Copper, Total	0.005	J	mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Iron, Total	ND		mg/l	0.050	0.009	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Lead, Total	ND		mg/l	0.010	0.003	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Magnesium, Total	ND		mg/l	0.100	0.015	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Manganese, Total	ND		mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/03/19 11:53	01/03/19 16:26	EPA 7470A	1,7470A	GD
Nickel, Total	ND		mg/l	0.025	0.002	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Potassium, Total	ND		mg/l	2.50	0.237	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Selenium, Total	ND		mg/l	0.010	0.004	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Silver, Total	ND		mg/l	0.007	0.003	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Sodium, Total	ND		mg/l	2.00	0.120	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Thallium, Total	ND		mg/l	0.020	0.003	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Vanadium, Total	ND		mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
Zinc, Total	ND		mg/l	0.050	0.002	1	01/02/19 12:55	01/03/19 12:01	EPA 3005A	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/03/19 12:01	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-09 Batch: WG1193357-1									
Mercury, Total	ND	mg/kg	0.083	0.018	1	12/28/18 06:30	01/03/19 21:24	1,7471B	EA

Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
Total Metals - Mansfield Lab for sample(s): 01-09 Batch: WG1193639-1										
Aluminum, Total	ND	mg/kg	4.00	1.08	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Antimony, Total	ND	mg/kg	2.00	0.152	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Arsenic, Total	ND	mg/kg	0.400	0.083	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Barium, Total	ND	mg/kg	0.400	0.070	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Beryllium, Total	ND	mg/kg	0.200	0.013	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Cadmium, Total	ND	mg/kg	0.400	0.039	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Calcium, Total	ND	mg/kg	4.00	1.40	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Chromium, Total	ND	mg/kg	0.400	0.038	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Cobalt, Total	ND	mg/kg	0.800	0.066	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Copper, Total	ND	mg/kg	0.400	0.103	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Iron, Total	ND	mg/kg	2.00	0.361	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Lead, Total	ND	mg/kg	2.00	0.107	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Magnesium, Total	ND	mg/kg	4.00	0.616	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Manganese, Total	ND	mg/kg	0.400	0.064	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Nickel, Total	ND	mg/kg	1.00	0.097	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Potassium, Total	ND	mg/kg	100	5.76	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Selenium, Total	ND	mg/kg	0.800	0.103	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Silver, Total	ND	mg/kg	0.400	0.113	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Sodium, Total	1.49	J	mg/kg	80.0	1.26	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC
Thallium, Total	ND	mg/kg	0.800	0.126	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Vanadium, Total	ND	mg/kg	0.400	0.081	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	
Zinc, Total	ND	mg/kg	2.00	0.117	1	12/28/18 17:48	12/29/18 02:45	1,6010D	MC	



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 11 Batch: WG1194043-1										
Aluminum, Total	ND		mg/l	0.100	0.032	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Antimony, Total	ND		mg/l	0.050	0.007	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Arsenic, Total	ND		mg/l	0.005	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Barium, Total	ND		mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Beryllium, Total	ND		mg/l	0.005	0.001	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Cadmium, Total	ND		mg/l	0.005	0.001	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Calcium, Total	ND		mg/l	0.100	0.035	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Chromium, Total	ND		mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Cobalt, Total	ND		mg/l	0.020	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Copper, Total	0.004	J	mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Iron, Total	ND		mg/l	0.050	0.009	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Lead, Total	ND		mg/l	0.010	0.003	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Magnesium, Total	ND		mg/l	0.100	0.015	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Manganese, Total	ND		mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Nickel, Total	ND		mg/l	0.025	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Potassium, Total	ND		mg/l	2.50	0.237	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Selenium, Total	ND		mg/l	0.010	0.004	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Silver, Total	ND		mg/l	0.007	0.003	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Sodium, Total	ND		mg/l	2.00	0.120	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Thallium, Total	ND		mg/l	0.020	0.003	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Vanadium, Total	ND		mg/l	0.010	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC
Zinc, Total	ND		mg/l	0.050	0.002	1	01/02/19 12:55	01/03/19 09:28	1,6010D	LC

Prep Information

Digestion Method: EPA 3005A



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 11 Batch: WG1194425-1									
Mercury, Total	ND	mg/l	0.00020	0.00006	1	01/03/19 11:53	01/03/19 16:22	1,7470A	GD

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-09 Batch: WG1193357-2 SRM Lot Number: D102-540								
Mercury, Total	75		-		65-134	-		



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-09 Batch: WG1193639-2 SRM Lot Number: D102-540					
Aluminum, Total	67	-	49-150	-	
Antimony, Total	148	-	1-199	-	
Arsenic, Total	90	-	83-117	-	
Barium, Total	86	-	83-118	-	
Beryllium, Total	89	-	83-116	-	
Cadmium, Total	98	-	83-118	-	
Calcium, Total	86	-	82-118	-	
Chromium, Total	85	-	83-117	-	
Cobalt, Total	88	-	84-116	-	
Copper, Total	85	-	84-116	-	
Iron, Total	83	-	61-139	-	
Lead, Total	86	-	82-118	-	
Magnesium, Total	77	-	76-124	-	
Manganese, Total	88	-	82-118	-	
Nickel, Total	89	-	83-117	-	
Potassium, Total	76	-	70-130	-	
Selenium, Total	90	-	79-121	-	
Silver, Total	86	-	80-120	-	
Sodium, Total	94	-	74-126	-	
Thallium, Total	95	-	81-119	-	
Vanadium, Total	84	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-09 Batch: WG1193639-2 SRM Lot Number: D102-540					
Zinc, Total	87	-	81-118	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 Batch: WG1194043-2					
Aluminum, Total	111	-	80-120	-	
Antimony, Total	98	-	80-120	-	
Arsenic, Total	115	-	80-120	-	
Barium, Total	105	-	80-120	-	
Beryllium, Total	104	-	80-120	-	
Cadmium, Total	111	-	80-120	-	
Calcium, Total	108	-	80-120	-	
Chromium, Total	104	-	80-120	-	
Cobalt, Total	103	-	80-120	-	
Copper, Total	102	-	80-120	-	
Iron, Total	112	-	80-120	-	
Lead, Total	110	-	80-120	-	
Magnesium, Total	112	-	80-120	-	
Manganese, Total	102	-	80-120	-	
Nickel, Total	104	-	80-120	-	
Potassium, Total	109	-	80-120	-	
Selenium, Total	118	-	80-120	-	
Silver, Total	110	-	80-120	-	
Sodium, Total	115	-	80-120	-	
Thallium, Total	109	-	80-120	-	
Vanadium, Total	107	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 Batch: WG1194043-2					
Zinc, Total	110	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 11 Batch: WG1194425-2					
Mercury, Total	102	-	80-120	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

<u>Parameter</u>	<u>Native Sample</u>	<u>MS Added</u>	<u>MS Found</u>	<u>MS %Recovery</u>	<u>MSD Found</u>	<u>MSD %Recovery</u>	<u>Recovery Limits</u>	<u>RPD</u>	<u>RPD Limits</u>
Total Metals - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG1193357-3 WG1193357-4 QC Sample: L1853234-03 Client ID: RB01_25-27									
Mercury, Total	0.032J	0.208	0.210	101	0.222	107	80-120	6	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits		
Total Metals - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG1193639-3 WG1193639-4 QC Sample: L1853234-03 Client ID: RB01_25-27											
Aluminum, Total	13200	265	14700	566	Q	14000	304	Q	75-125	5	20
Antimony, Total	ND	66.2	50.8	77		49.4	75		75-125	3	20
Arsenic, Total	6.94	15.9	21.7	93		21.2	90		75-125	2	20
Barium, Total	28.4	265	268	90		251	85		75-125	7	20
Beryllium, Total	0.516J	6.62	6.45	97		6.17	94		75-125	4	20
Cadmium, Total	0.503J	6.76	6.30	93		6.09	91		75-125	3	20
Calcium, Total	2740	1320	3520	59	Q	3310	43	Q	75-125	6	20
Chromium, Total	28.8	26.5	52.5	89		50.8	84		75-125	3	20
Cobalt, Total	9.66	66.2	64.3	82		61.6	79		75-125	4	20
Copper, Total	12.5	33.1	39.3	81		35.9	71	Q	75-125	9	20
Iron, Total	26800	132	28800	1510	Q	27900	836	Q	75-125	3	20
Lead, Total	23.5	67.6	69.2	68	Q	66.5	64	Q	75-125	4	20
Magnesium, Total	6200	1320	7600	106		7270	81		75-125	4	20
Manganese, Total	349	66.2	405	84		386	56	Q	75-125	5	20
Nickel, Total	20.2	66.2	75.0	83		71.6	78		75-125	5	20
Potassium, Total	2880	1320	4550	126	Q	4150	96		75-125	9	20
Selenium, Total	1.06J	15.9	14.6	92		13.7	87		75-125	6	20
Silver, Total	ND	39.7	36.3	91		35.1	89		75-125	3	20
Sodium, Total	701	1320	1890	90		1820	85		75-125	4	20
Thallium, Total	ND	15.9	12.0	75		11.8	75		75-125	2	20
Vanadium, Total	36.3	66.2	96.8	91		92.8	86		75-125	4	20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG1193639-3 WG1193639-4 QC Sample: L1853234-03 Client ID: RB01_25-27									
Zinc, Total	69.5	66.2	122	79	117	72	Q 75-125	4	20

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 QC Batch ID: WG1194043-3 QC Sample: L1852881-01 Client ID: MS Sample									
Aluminum, Total	0.139	2	2.39	112	-	-	75-125	-	20
Antimony, Total	ND	0.5	0.523	105	-	-	75-125	-	20
Arsenic, Total	ND	0.12	0.138	115	-	-	75-125	-	20
Barium, Total	0.004J	2	2.13	106	-	-	75-125	-	20
Beryllium, Total	ND	0.05	0.053	106	-	-	75-125	-	20
Cadmium, Total	ND	0.051	0.057	112	-	-	75-125	-	20
Calcium, Total	7.51	10	19.2	117	-	-	75-125	-	20
Chromium, Total	ND	0.2	0.212	106	-	-	75-125	-	20
Cobalt, Total	0.002J	0.5	0.523	105	-	-	75-125	-	20
Copper, Total	0.005J	0.25	0.261	104	-	-	75-125	-	20
Iron, Total	0.151	1	1.29	114	-	-	75-125	-	20
Lead, Total	ND	0.51	0.562	110	-	-	75-125	-	20
Magnesium, Total	1.50	10	12.7	112	-	-	75-125	-	20
Manganese, Total	0.018	0.5	0.530	102	-	-	75-125	-	20
Nickel, Total	0.007J	0.5	0.529	106	-	-	75-125	-	20
Potassium, Total	0.529J	10	11.4	114	-	-	75-125	-	20
Selenium, Total	ND	0.12	0.142	118	-	-	75-125	-	20
Silver, Total	ND	0.05	0.054	108	-	-	75-125	-	20
Sodium, Total	2.04	10	13.4	114	-	-	75-125	-	20
Thallium, Total	ND	0.12	0.131	109	-	-	75-125	-	20
Vanadium, Total	ND	0.5	0.539	108	-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 QC Batch ID: WG1194043-3 QC Sample: L1852881-01 Client ID: MS Sample									
Zinc, Total	0.010J	0.5	0.566	113	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 11 QC Batch ID: WG1194425-3 QC Sample: L1853234-11 Client ID: SOFB02_122718									
Mercury, Total	ND	0.005	0.00459	92	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 QC Batch ID: WG1194043-4 QC Sample: L1852881-01 Client ID: DUP Sample						
Iron, Total	0.151	0.154	mg/l	2		20
Manganese, Total	0.018	0.019	mg/l	2		20
Total Metals - Mansfield Lab Associated sample(s): 11 QC Batch ID: WG1194425-4 QC Sample: L1853234-11 Client ID: SOFB02_122718						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS & MISCELLANEOUS

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-01

Date Collected: 12/27/18 09:30

Client ID: RB01_0-2

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.2		%	0.100	NA	1	-	12/28/18 11:48	121,2540G	RI
Cyanide, Total	0.31	J	mg/kg	1.1	0.23	1	12/28/18 14:00	01/02/19 12:00	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.962	0.192	1	12/28/18 16:30	12/29/18 00:05	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-02

Date Collected: 12/27/18 09:40

Client ID: RB01_14-15

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	62.6		%	0.100	NA	1	-	12/28/18 11:48	121,2540G	RI
Cyanide, Total	1.2	J	mg/kg	1.4	0.31	1	12/28/18 14:00	01/02/19 11:41	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	1.28	0.256	1	12/28/18 16:30	12/29/18 00:05	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-03

Date Collected: 12/27/18 09:45

Client ID: RB01_25-27

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	60.3		%	0.100	NA	1	-	12/28/18 11:48	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.6	0.34	1	12/28/18 14:00	01/02/19 11:44	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	1.33	0.265	1	12/28/18 16:30	12/29/18 00:05	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-04

Date Collected: 12/27/18 12:45

Client ID: RB08_0-2

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.1		%	0.100	NA	1	-	12/28/18 11:48	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	12/28/18 14:00	01/02/19 11:47	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.908	0.182	1	12/28/18 16:30	12/29/18 00:05	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-05
Client ID: RB08_10-12
Sample Location: BRONX, NY

Date Collected: 12/27/18 12:50
Date Received: 12/27/18
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.1		%	0.100	NA	1	-	12/28/18 11:48	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	12/28/18 14:00	01/02/19 11:48	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.918	0.184	1	12/28/18 16:30	12/29/18 00:05	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-06

Date Collected: 12/27/18 12:55

Client ID: RB08_12-14

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.8		%	0.100	NA	1	-	12/28/18 11:48	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	12/28/18 14:00	01/02/19 11:49	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.955	0.191	1	12/28/18 16:30	12/29/18 00:05	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-07

Date Collected: 12/27/18 13:00

Client ID: RB08_14-16

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	67.8		%	0.100	NA	1	-	12/28/18 11:48	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.4	0.30	1	12/28/18 14:00	01/02/19 11:50	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	1.18	0.236	1	12/28/18 16:30	12/29/18 00:05	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-08

Date Collected: 12/27/18 00:00

Client ID: SODUP02_122718

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	72.3		%	0.100	NA	1	-	12/28/18 11:48	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.3	0.27	1	12/28/18 14:00	01/02/19 11:51	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	1.11	0.221	1	12/28/18 16:30	12/29/18 00:05	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

SAMPLE RESULTS

Lab ID: L1853234-09

Date Collected: 12/27/18 09:35

Client ID: RB01_9-11

Date Received: 12/27/18

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.2		%	0.100	NA	1	-	12/28/18 11:48	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	12/28/18 14:00	01/02/19 11:52	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.917	0.183	1	12/28/18 16:30	12/29/18 00:05	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**SAMPLE RESULTS**

Lab ID: L1853234-11
 Client ID: SOFB02_122718
 Sample Location: BRONX, NY

Date Collected: 12/27/18 10:45
 Date Received: 12/27/18
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	12/28/18 10:40	12/28/18 15:15	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	12/28/18 05:00	12/28/18 05:42	1,7196A	JW



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 11 Batch: WG1193370-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	12/28/18 05:00	12/28/18 05:41	1,7196A	JW
General Chemistry - Westborough Lab for sample(s): 11 Batch: WG1193431-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	12/28/18 10:40	12/28/18 12:57	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 01-09 Batch: WG1193512-1										
Cyanide, Total	ND		mg/kg	0.94	0.20	1	12/28/18 14:00	01/02/19 11:36	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 01-09 Batch: WG1193635-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	12/28/18 16:30	12/29/18 00:05	1,7196A	AJ

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 11 Batch: WG1193370-2								
Chromium, Hexavalent	96		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 11 Batch: WG1193431-2 WG1193431-3								
Cyanide, Total	102		106		85-115	4		20
General Chemistry - Westborough Lab Associated sample(s): 01-09 Batch: WG1193512-2 WG1193512-3								
Cyanide, Total	80		73	Q	80-120	8		35
General Chemistry - Westborough Lab Associated sample(s): 01-09 Batch: WG1193635-2								
Chromium, Hexavalent	90		-		80-120	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1853234
Report Date: 01/07/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG1193370-4 QC Sample: L1853234-11 Client ID: SOFB02_122718												
Chromium, Hexavalent	ND	0.1	0.098	98	-	-	-	-	85-115	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG1193431-4 WG1193431-5 QC Sample: L1853104-01 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.162	81	0.183	0.183	92	Q	80-120	12	Q	20
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1193512-4 WG1193512-5 QC Sample: L1853234-03 Client ID: RB01_25-27												
Cyanide, Total	ND	16	15	95	15	15	98	Q	75-125	0	Q	35
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1193635-4 WG1193635-5 QC Sample: L1853234-03 Client ID: RB01_25-27												
Chromium, Hexavalent	ND	2110	289	14	Q	62.0J	3	Q	75-125	129	Q	20



Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1853234

Report Date: 01/07/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG1193370-3 QC Sample: L1853234-11 Client ID: SOFB02_122718						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1193532-1 QC Sample: L1853234-03 Client ID: RB01_25-27						
Solids, Total	60.3	59.2	%	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1193635-6 QC Sample: L1853234-03 Client ID: RB01_25-27						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1853234**Project Number:** 170487001**Report Date:** 01/07/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1853234-01A	Vial MeOH preserved	A	NA		3.4	Y	Absent		NYTCL-8260HLW(14)
L1853234-01B	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-01C	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-01D	Plastic 2oz unpreserved for TS	A	NA		3.4	Y	Absent		TS(7)
L1853234-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853234-01F	Glass 120ml/4oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-01G	Glass 500ml/16oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-02A	Vial MeOH preserved	A	NA		3.4	Y	Absent		NYTCL-8260HLW(14)
L1853234-02B	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-02C	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-02D	Plastic 2oz unpreserved for TS	A	NA		3.4	Y	Absent		TS(7)
L1853234-02E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853234-02F	Glass 120ml/4oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-02G	Glass 500ml/16oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1853234

Project Number: 170487001

Report Date: 01/07/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1853234-03A	Vial MeOH preserved	A	NA		3.4	Y	Absent		NYTCL-8260HLW(14)
L1853234-03A1	Vial MeOH preserved	A	NA		3.4	Y	Absent		NYTCL-8260HLW(14)
L1853234-03A2	Vial MeOH preserved	A	NA		3.4	Y	Absent		NYTCL-8260HLW(14)
L1853234-03B	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-03B1	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-03B2	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-03C	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-03C1	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-03C2	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-03D	Plastic 2oz unpreserved for TS	A	NA		3.4	Y	Absent		TS(7)
L1853234-03D1	Plastic 2oz unpreserved for TS	A	NA		3.4	Y	Absent		TS(7)
L1853234-03D2	Plastic 2oz unpreserved for TS	A	NA		3.4	Y	Absent		TS(7)
L1853234-03E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853234-03E1	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853234-03E2	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853234-03F	Glass 120ml/4oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-03F1	Glass 120ml/4oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-03F2	Glass 120ml/4oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Serial_No:01071917:00
Lab Number: L1853234
Report Date: 01/07/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1853234-03G	Glass 500ml/16oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-03G1	Glass 500ml/16oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-03G2	Glass 500ml/16oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-04A	Vial MeOH preserved	A	NA		3.4	Y	Absent		NYTCL-8260HLW(14)
L1853234-04B	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-04C	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-04D	Plastic 2oz unpreserved for TS	A	NA		3.4	Y	Absent		TS(7)
L1853234-04E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853234-04F	Glass 120ml/4oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-04G	Glass 500ml/16oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-05A	Vial MeOH preserved	A	NA		3.4	Y	Absent		NYTCL-8260HLW(14)
L1853234-05B	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-05C	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-05D	Plastic 2oz unpreserved for TS	A	NA		3.4	Y	Absent		TS(7)
L1853234-05E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853234-05F	Glass 120ml/4oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-05G	Glass 500ml/16oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1853234-06A	Vial MeOH preserved	A	NA		3.4	Y	Absent		NYTCL-8260HLW(14)
L1853234-06B	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-06C	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-06D	Plastic 2oz unpreserved for TS	A	NA		3.4	Y	Absent		TS(7)
L1853234-06E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853234-06F	Glass 120ml/4oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-06G	Glass 500ml/16oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-07A	Vial MeOH preserved	A	NA		3.4	Y	Absent		NYTCL-8260HLW(14)
L1853234-07B	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-07C	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-07D	Plastic 2oz unpreserved for TS	A	NA		3.4	Y	Absent		TS(7)
L1853234-07E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853234-07F	Glass 120ml/4oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-07G	Glass 500ml/16oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-08A	Vial MeOH preserved	A	NA		3.4	Y	Absent		NYTCL-8260HLW(14)
L1853234-08B	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-08C	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-08D	Plastic 2oz unpreserved for TS	A	NA		3.4	Y	Absent		TS(7)

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Container Information

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L1853234-08E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853234-08F	Glass 120ml/4oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-08G	Glass 500ml/16oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-09A	Vial MeOH preserved	A	NA		3.4	Y	Absent		NYTCL-8260HLW(14)
L1853234-09B	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-09C	Vial water preserved	A	NA		3.4	Y	Absent	28-DEC-18 01:50	NYTCL-8260HLW(14)
L1853234-09D	Plastic 2oz unpreserved for TS	A	NA		3.4	Y	Absent		TS(7)
L1853234-09E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853234-09F	Glass 120ml/4oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-09G	Glass 500ml/16oz unpreserved	A	NA		3.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1853234-10A	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260(14)
L1853234-10B	Vial HCl preserved	A	NA		3.4	Y	Absent		NYTCL-8260(14)
L1853234-11A	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1853234-11B	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1853234-11C	Vial HCl preserved	B	NA		3.6	Y	Absent		NYTCL-8260(14)
L1853234-11D	Plastic 250ml HNO3 preserved	B	<2	<2	3.6	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1853234-11E	Plastic 250ml NaOH preserved	B	>12	>12	3.6	Y	Absent		TCN-9010(14)
L1853234-11F	Plastic 500ml unpreserved	B	7	7	3.6	Y	Absent		HEXCR-7196(1)

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Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1853234-11G	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8082-LVI(7)
L1853234-11H	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8082-LVI(7)
L1853234-11I	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8081(7)
L1853234-11J	Amber 120ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8081(7)
L1853234-11K	Amber 250ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1853234-11L	Amber 250ml unpreserved	B	7	7	3.6	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1853234-11M	Amber 1000ml unpreserved	B	7	7	3.6	Y	Absent		HERB-APA(7)
L1853234-11N	Amber 1000ml unpreserved	B	7	7	3.6	Y	Absent		HERB-APA(7)

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GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers



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Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

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REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 <p>NEW YORK CHAIN OF CUSTODY</p> <p>Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193</p> <p>Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288</p>	<p>Service Centers</p> <p>Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105</p>	<p>Page</p> <p>1 of 2</p>	<p>Date Rec'd in Lab</p> <p>12/27/18</p>	<p>ALPHA Job #</p> <p>41853234</p>																																																																															
	<p>Project Information</p> <p>Project Name: Gerard Ave + E. 146th St. Project Location: Bronx, NY Project # 170487001 (Use Project name as Project #) <input type="checkbox"/></p> <p>Project Manager: Julia Leung ALPHAQuote #: 7013</p> <p>Turn-Around Time</p> <p>Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:</p>	<p>Deliverables</p> <p><input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other</p> <p>Regulatory Requirement</p> <p><input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge</p>	<p>Billing Information</p> <p><input checked="" type="checkbox"/> Same as Client Info PO #</p> <p>Disposal Site Information</p> <p>Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:</p>																																																																																
<p>Client Information</p> <p>Client: Langan Engineering Address: 21 Penn Plaza, 360 W. 31st St 8th Fl., NY, NY 10001-2727 Phone: (212) 479-5400 Fax: (212) 479-5444 Email: jleung@langan.com</p>	<p>These samples have been previously analyzed by Alpha <input type="checkbox"/></p> <p>Other project specific requirements/comments: Please also cc: datamanagement@langan.com and vzuluaga@langan.com Please specify Metals or TAL.</p>	<p>ANALYSIS</p> <table border="1"> <thead> <tr> <th>Part 375/TCL VOCs</th> <th>Part 375/TCL SVOCs</th> <th>Part 375/TCL PCBs</th> <th>Pesticides</th> <th>Herbicides</th> <th>TAL Metals</th> <th>Hex Chromium</th> <th>Total Cyanide</th> </tr> </thead> <tbody> <tr> <td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td> </tr> <tr> <td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td> </tr> <tr> <td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td> </tr> <tr> <td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td> </tr> <tr> <td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td> </tr> <tr> <td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td> </tr> <tr> <td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td> </tr> <tr> <td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td> </tr> <tr> <td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td> </tr> </tbody> </table>	Part 375/TCL VOCs	Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hex Chromium	Total Cyanide	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	<p>Sample Filtration</p> <p><input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Preservation <input type="checkbox"/> Lab to do (Please Specify below)</p> <p>Sample Specific Comments</p> <p>MS/MSD collected</p> <p>12-27-18</p>
Part 375/TCL VOCs	Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hex Chromium	Total Cyanide																																																																												
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<p>ALPHA Lab ID (Lab Use Only)</p> <p>Sample ID</p> <p>Collection Date Time</p> <p>Sample Matrix</p> <p>Sampler's Initials</p>	<p>Preservative Code: A = None B = HCl C = HNO₃ D = H₂SO₄ E = NaOH F = MeOH G = NaHSO₄ H = Na₂S₂O₃ K/E = Zn Ac/NaOH O = Other</p> <p>Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle</p> <p>Westboro: Certification No: MA935 Mansfield: Certification No: MA015</p>	<p>Container Type</p> <p>Preservative</p>	<p>Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)</p>																																																																																
<p>Relinquished By:</p> <p>Date/Time</p>	<p>Received By:</p> <p>Date/Time</p>	<p>Form No: 01-25 HC (rev. 30-Sept-2013)</p>																																																																																	

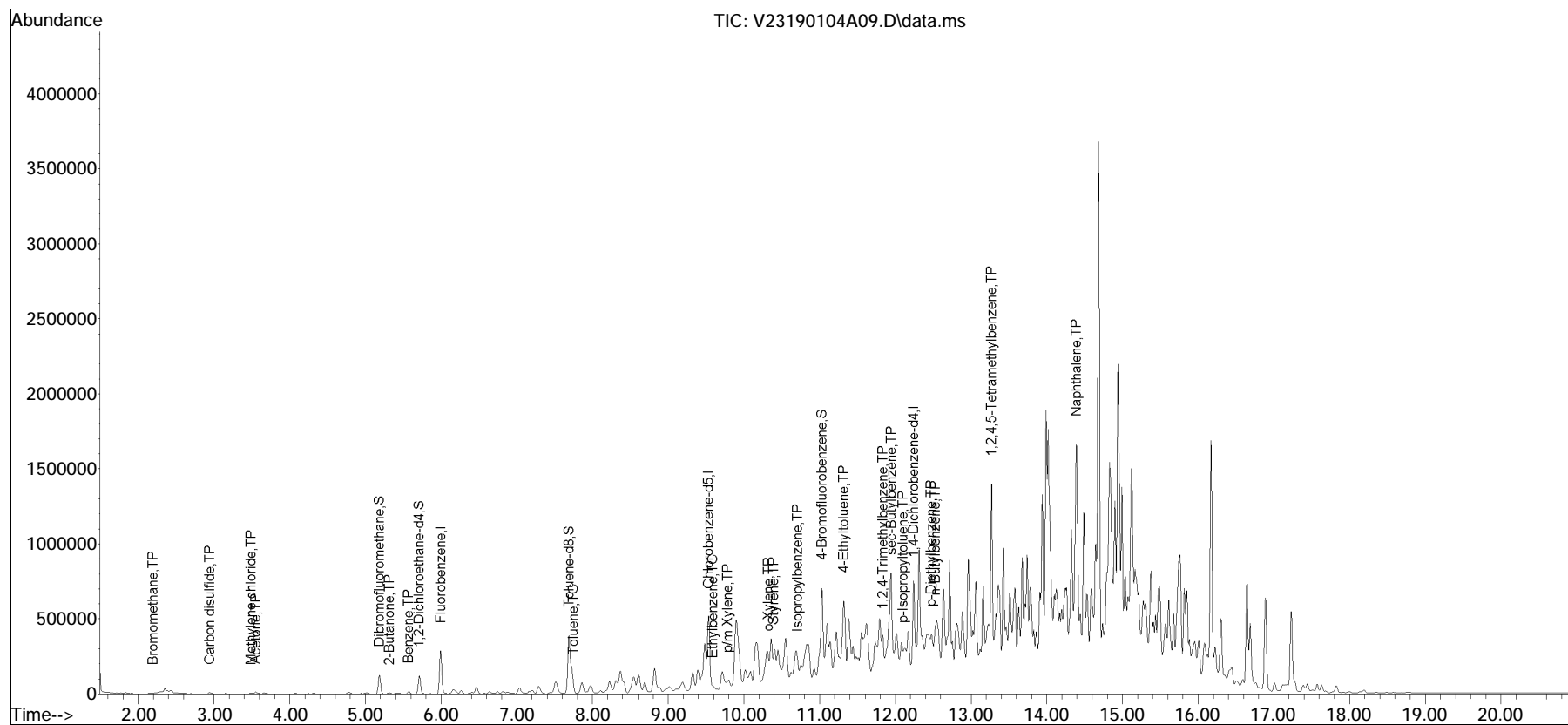
 Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-698-9193	NEW YORK CHAIN OF CUSTODY Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page	Date Rec'd in Lab	ALPHA Job #									
			2 of 2	12/27/18	L1853234									
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Sample Specific Comments														
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection	Sample Matrix	Sampler's Initials	Part 375/TCL VOCs	Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hex Chromium	Total Organics		
		Date Time												
	SOTB02 - 122718	12/27/18 1045	soil	JA	X	X	X	X	X	X	X	X		
53234-09	R1301-9-11	12/27/18 0935	soil	JA	X	X	X	X	X	X	X	X		
-10	SOTB03 - 122718	- -	AQ	JA	X									
-11	SOTB02 - 122718	12/27/18 1045	AQ	JA	X	X	X	X	X	X	X	X		
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other			Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle			Westboro: Certification No: MA935 Mansfield: Certification No: MA015			Container Type Preservative			Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)		
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[Signature]			12/27/18 15:21			[Signature]			12/27/18 1900					
[Signature]			12/27/18 2300			[Signature]			12/27/18 2300					

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA123\2019\190104A\
 Data File : V23190104A09.D
 Acq On : 04 Jan 2019 02:59 pm
 Operator : VOA123:MKS
 Sample : 11853234-02,31H,3.60,5,0.100,,a
 Misc : WG1195021,ICAL15371
 ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 04 15:40:58 2019
 Quant Method : I:\VOLATILES\VOA123\2019\190104A\V123_190103D_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Jan 04 09:22:26 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90104A\V23190104A03.D•





ANALYTICAL REPORT

Lab Number:	L1900156
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	GERARD AVE. + E. 146TH ST.
Project Number:	170487001
Report Date:	01/09/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1900156-01	RB09_0-2	SOIL	BRONX, NY	01/02/19 13:40	01/02/19
L1900156-02	RB09_19-21	SOIL	BRONX, NY	01/02/19 13:45	01/02/19
L1900156-03	RB09_28-30	SOIL	BRONX, NY	01/02/19 13:50	01/02/19
L1900156-04	RB11_0-2	SOIL	BRONX, NY	01/02/19 10:30	01/02/19
L1900156-05	RB11_19-21	SOIL	BRONX, NY	01/02/19 10:35	01/02/19
L1900156-06	RB11_28-30	SOIL	BRONX, NY	01/02/19 10:40	01/02/19
L1900156-07	SODUP03_010219	SOIL	BRONX, NY	01/02/19 00:00	01/02/19
L1900156-08	SOTB04_010219	WATER	BRONX, NY	01/02/19 00:00	01/02/19

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The analyses performed were specified by the client.

L1900156-03: The collection date and time on the chain of custody was 02-JAN-19 13:40; however, the collection date/time on the container label was 02-JAN-19 13:50. At the client's request, the collection date/time is reported as 02-JAN-19 13:50.

Volatile Organics

L1900156-02, -05 and -07: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

L1900156-05: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (165%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

L1900156-07: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (146%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

Pesticides

L1900156-05 and -07: The sample has elevated detection limits due to the dilution required by the sample matrix.

L1900156-05 and -07: The surrogate recoveries are below the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (0%) and decachlorobiphenyl (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Herbicides

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Case Narrative (continued)

L1900156-07: The sample has elevated detection limits due to the dilution required by the sample matrix.

L1900156-07: The surrogate recoveries are below the acceptance criteria for dcaa (0%) due to the dilution required to quantitate the sample. Re-extraction was not required; therefore, the results of the original analysis are reported.

Total Metals

L1900156-01 through -07: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

Cyanide, Total

The WG1194383-2/-3 LCS/LCSD recoveries (68%/72%), associated with L1900156-01 through -07, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 01/09/19

ORGANICS

VOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-01
 Client ID: RB09_0-2
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/06/19 14:04
 Analyst: JC
 Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	0.70	J	ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.12	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.26	1
Tetrachloroethene	0.46	J	ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.69	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Bromodichloromethane	ND		ug/kg	0.50	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.50	0.16	1
Bromoform	ND		ug/kg	4.0	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.16	1
Benzene	ND		ug/kg	0.50	0.16	1
Toluene	ND		ug/kg	1.0	0.54	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.93	1
Bromomethane	ND		ug/kg	2.0	0.58	1
Vinyl chloride	ND		ug/kg	1.0	0.33	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-01

Date Collected: 01/02/19 13:40

Client ID: RB09_0-2

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
Xylenes, Total	ND		ug/kg	1.0	0.29	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.0	0.24	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.91	1
Acetone	ND		ug/kg	10	4.8	1
Carbon disulfide	ND		ug/kg	10	4.5	1
2-Butanone	ND		ug/kg	10	2.2	1
Vinyl acetate	ND		ug/kg	10	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
1,3-Dichloropropane	ND		ug/kg	2.0	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.14	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	0.99	1
Hexachlorobutadiene	ND		ug/kg	4.0	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.0	0.65	1
Acrylonitrile	ND		ug/kg	4.0	1.1	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-01
 Client ID: RB09_0-2
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.0	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
1,4-Dioxane	ND		ug/kg	100	35.	1
p-Diethylbenzene	ND		ug/kg	2.0	0.18	1
p-Ethyltoluene	ND		ug/kg	2.0	0.38	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19	1
Ethyl ether	ND		ug/kg	2.0	0.34	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	98		70-130

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-02 D
 Client ID: RB09_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:45
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/06/19 14:29
 Analyst: JC
 Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	2700	1200	10
1,1-Dichloroethane	ND		ug/kg	530	78.	10
Chloroform	ND		ug/kg	800	75.	10
Carbon tetrachloride	ND		ug/kg	530	120	10
1,2-Dichloropropane	ND		ug/kg	530	67.	10
Dibromochloromethane	ND		ug/kg	530	75.	10
1,1,2-Trichloroethane	ND		ug/kg	530	140	10
Tetrachloroethene	ND		ug/kg	270	100	10
Chlorobenzene	ND		ug/kg	270	68.	10
Trichlorofluoromethane	ND		ug/kg	2100	370	10
1,2-Dichloroethane	ND		ug/kg	530	140	10
1,1,1-Trichloroethane	ND		ug/kg	270	89.	10
Bromodichloromethane	ND		ug/kg	270	58.	10
trans-1,3-Dichloropropene	ND		ug/kg	530	140	10
cis-1,3-Dichloropropene	ND		ug/kg	270	84.	10
1,3-Dichloropropene, Total	ND		ug/kg	270	84.	10
1,1-Dichloropropene	ND		ug/kg	270	85.	10
Bromoform	ND		ug/kg	2100	130	10
1,1,2,2-Tetrachloroethane	ND		ug/kg	270	89.	10
Benzene	1100		ug/kg	270	89.	10
Toluene	ND		ug/kg	530	290	10
Ethylbenzene	790		ug/kg	530	75.	10
Chloromethane	ND		ug/kg	2100	500	10
Bromomethane	ND		ug/kg	1100	310	10
Vinyl chloride	ND		ug/kg	530	180	10
Chloroethane	ND		ug/kg	1100	240	10
1,1-Dichloroethene	ND		ug/kg	530	130	10
trans-1,2-Dichloroethene	ND		ug/kg	800	73.	10

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-02 D

Date Collected: 01/02/19 13:45

Client ID: RB09_19-21

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	270	73.	10
1,2-Dichlorobenzene	ND		ug/kg	1100	77.	10
1,3-Dichlorobenzene	ND		ug/kg	1100	79.	10
1,4-Dichlorobenzene	ND		ug/kg	1100	91.	10
Methyl tert butyl ether	ND		ug/kg	1100	110	10
p/m-Xylene	500	J	ug/kg	1100	300	10
o-Xylene	ND		ug/kg	530	160	10
Xylenes, Total	500	J	ug/kg	530	160	10
cis-1,2-Dichloroethene	ND		ug/kg	530	94.	10
1,2-Dichloroethene, Total	ND		ug/kg	530	73.	10
Dibromomethane	ND		ug/kg	1100	130	10
Styrene	ND		ug/kg	530	100	10
Dichlorodifluoromethane	ND		ug/kg	5300	490	10
Acetone	ND		ug/kg	5300	2600	10
Carbon disulfide	ND		ug/kg	5300	2400	10
2-Butanone	ND		ug/kg	5300	1200	10
Vinyl acetate	ND		ug/kg	5300	1100	10
4-Methyl-2-pentanone	ND		ug/kg	5300	680	10
1,2,3-Trichloropropane	ND		ug/kg	1100	68.	10
2-Hexanone	ND		ug/kg	5300	630	10
Bromochloromethane	ND		ug/kg	1100	110	10
2,2-Dichloropropane	ND		ug/kg	1100	110	10
1,2-Dibromoethane	ND		ug/kg	530	150	10
1,3-Dichloropropane	ND		ug/kg	1100	89.	10
1,1,1,2-Tetrachloroethane	ND		ug/kg	270	70.	10
Bromobenzene	ND		ug/kg	1100	78.	10
n-Butylbenzene	7200		ug/kg	530	89.	10
sec-Butylbenzene	2600		ug/kg	530	78.	10
tert-Butylbenzene	260	J	ug/kg	1100	63.	10
o-Chlorotoluene	ND		ug/kg	1100	100	10
p-Chlorotoluene	ND		ug/kg	1100	58.	10
1,2-Dibromo-3-chloropropane	ND		ug/kg	1600	530	10
Hexachlorobutadiene	ND		ug/kg	2100	90.	10
Isopropylbenzene	8700		ug/kg	530	58.	10
p-Isopropyltoluene	340	J	ug/kg	530	58.	10
Naphthalene	600	J	ug/kg	2100	350	10
Acrylonitrile	ND		ug/kg	2100	610	10

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-02 D
 Client ID: RB09_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:45
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	21000		ug/kg	530	91.	10
1,2,3-Trichlorobenzene	ND		ug/kg	1100	170	10
1,2,4-Trichlorobenzene	ND		ug/kg	1100	140	10
1,3,5-Trimethylbenzene	130	J	ug/kg	1100	100	10
1,2,4-Trimethylbenzene	ND		ug/kg	1100	180	10
1,4-Dioxane	ND		ug/kg	53000	19000	10
p-Diethylbenzene	5300		ug/kg	1100	95.	10
p-Ethyltoluene	1100		ug/kg	1100	200	10
1,2,4,5-Tetramethylbenzene	17000		ug/kg	1100	100	10
Ethyl ether	ND		ug/kg	1100	180	10
trans-1,4-Dichloro-2-butene	ND		ug/kg	2700	760	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	128		70-130
Dibromofluoromethane	86		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-03
 Client ID: RB09_28-30
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:50
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/06/19 14:54
 Analyst: JC
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.9	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.98	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	0.98	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.98	0.12	1
Dibromochloromethane	ND		ug/kg	0.98	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	0.98	0.26	1
Tetrachloroethene	ND		ug/kg	0.49	0.19	1
Chlorobenzene	ND		ug/kg	0.49	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.9	0.68	1
1,2-Dichloroethane	ND		ug/kg	0.98	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	0.49	0.16	1
Bromodichloromethane	ND		ug/kg	0.49	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	0.98	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.49	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.49	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.49	0.16	1
Bromoform	ND		ug/kg	3.9	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.49	0.16	1
Benzene	0.19	J	ug/kg	0.49	0.16	1
Toluene	ND		ug/kg	0.98	0.53	1
Ethylbenzene	0.89	J	ug/kg	0.98	0.14	1
Chloromethane	ND		ug/kg	3.9	0.91	1
Bromomethane	ND		ug/kg	2.0	0.57	1
Vinyl chloride	ND		ug/kg	0.98	0.33	1
Chloroethane	ND		ug/kg	2.0	0.44	1
1,1-Dichloroethene	ND		ug/kg	0.98	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.13	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-03

Date Collected: 01/02/19 13:50

Client ID: RB09_28-30

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.49	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.55	1
o-Xylene	ND		ug/kg	0.98	0.28	1
Xylenes, Total	ND		ug/kg	0.98	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.98	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	0.98	0.13	1
Dibromomethane	ND		ug/kg	2.0	0.23	1
Styrene	ND		ug/kg	0.98	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.8	0.90	1
Acetone	5.5	J	ug/kg	9.8	4.7	1
Carbon disulfide	ND		ug/kg	9.8	4.5	1
2-Butanone	ND		ug/kg	9.8	2.2	1
Vinyl acetate	ND		ug/kg	9.8	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	9.8	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.12	1
2-Hexanone	ND		ug/kg	9.8	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	0.98	0.27	1
1,3-Dichloropropane	ND		ug/kg	2.0	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.49	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	2.0		ug/kg	0.98	0.16	1
sec-Butylbenzene	1.3		ug/kg	0.98	0.14	1
tert-Butylbenzene	0.48	J	ug/kg	2.0	0.12	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.98	1
Hexachlorobutadiene	ND		ug/kg	3.9	0.16	1
Isopropylbenzene	2.8		ug/kg	0.98	0.11	1
p-Isopropyltoluene	0.40	J	ug/kg	0.98	0.11	1
Naphthalene	5.4		ug/kg	3.9	0.64	1
Acrylonitrile	ND		ug/kg	3.9	1.1	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-03
Client ID: RB09_28-30
Sample Location: BRONX, NY

Date Collected: 01/02/19 13:50
Date Received: 01/02/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	6.0		ug/kg	0.98	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	0.27	J	ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
1,4-Dioxane	ND		ug/kg	98	34.	1
p-Diethylbenzene	1.5	J	ug/kg	2.0	0.17	1
p-Ethyltoluene	0.74	J	ug/kg	2.0	0.38	1
1,2,4,5-Tetramethylbenzene	5.0		ug/kg	2.0	0.19	1
Ethyl ether	ND		ug/kg	2.0	0.33	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.9	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	93		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-04
 Client ID: RB11_0-2
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:30
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/06/19 15:20
 Analyst: JC
 Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.8	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.96	0.14	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.96	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.96	0.12	1
Dibromochloromethane	ND		ug/kg	0.96	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.96	0.26	1
Tetrachloroethene	0.38	J	ug/kg	0.48	0.19	1
Chlorobenzene	ND		ug/kg	0.48	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.8	0.67	1
1,2-Dichloroethane	ND		ug/kg	0.96	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	0.48	0.16	1
Bromodichloromethane	ND		ug/kg	0.48	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.96	0.26	1
cis-1,3-Dichloropropene	ND		ug/kg	0.48	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.48	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.48	0.15	1
Bromoform	ND		ug/kg	3.8	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.48	0.16	1
Benzene	0.84		ug/kg	0.48	0.16	1
Toluene	2.3		ug/kg	0.96	0.52	1
Ethylbenzene	0.56	J	ug/kg	0.96	0.14	1
Chloromethane	ND		ug/kg	3.8	0.90	1
Bromomethane	ND		ug/kg	1.9	0.56	1
Vinyl chloride	ND		ug/kg	0.96	0.32	1
Chloroethane	ND		ug/kg	1.9	0.44	1
1,1-Dichloroethene	ND		ug/kg	0.96	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-04

Date Collected: 01/02/19 10:30

Client ID: RB11_0-2

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.48	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.9	0.19	1
p/m-Xylene	4.7		ug/kg	1.9	0.54	1
o-Xylene	2.5		ug/kg	0.96	0.28	1
Xylenes, Total	7.2		ug/kg	0.96	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.96	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	0.96	0.13	1
Dibromomethane	ND		ug/kg	1.9	0.23	1
Styrene	ND		ug/kg	0.96	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.6	0.88	1
Acetone	24		ug/kg	9.6	4.6	1
Carbon disulfide	ND		ug/kg	9.6	4.4	1
2-Butanone	ND		ug/kg	9.6	2.1	1
Vinyl acetate	ND		ug/kg	9.6	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	9.6	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	1.9	0.12	1
2-Hexanone	ND		ug/kg	9.6	1.1	1
Bromochloromethane	ND		ug/kg	1.9	0.20	1
2,2-Dichloropropane	ND		ug/kg	1.9	0.19	1
1,2-Dibromoethane	ND		ug/kg	0.96	0.27	1
1,3-Dichloropropane	ND		ug/kg	1.9	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.48	0.13	1
Bromobenzene	ND		ug/kg	1.9	0.14	1
n-Butylbenzene	ND		ug/kg	0.96	0.16	1
sec-Butylbenzene	0.16	J	ug/kg	0.96	0.14	1
tert-Butylbenzene	ND		ug/kg	1.9	0.11	1
o-Chlorotoluene	ND		ug/kg	1.9	0.18	1
p-Chlorotoluene	ND		ug/kg	1.9	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.96	1
Hexachlorobutadiene	ND		ug/kg	3.8	0.16	1
Isopropylbenzene	0.19	J	ug/kg	0.96	0.10	1
p-Isopropyltoluene	0.24	J	ug/kg	0.96	0.10	1
Naphthalene	2.6	J	ug/kg	3.8	0.63	1
Acrylonitrile	ND		ug/kg	3.8	1.1	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-04
Client ID: RB11_0-2
Sample Location: BRONX, NY

Date Collected: 01/02/19 10:30
Date Received: 01/02/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	0.40	J	ug/kg	0.96	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.9	0.31	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	0.26	1
1,3,5-Trimethylbenzene	4.1		ug/kg	1.9	0.19	1
1,2,4-Trimethylbenzene	6.6		ug/kg	1.9	0.32	1
1,4-Dioxane	ND		ug/kg	96	34.	1
p-Diethylbenzene	15		ug/kg	1.9	0.17	1
p-Ethyltoluene	4.4		ug/kg	1.9	0.37	1
1,2,4,5-Tetramethylbenzene	5.9		ug/kg	1.9	0.18	1
Ethyl ether	ND		ug/kg	1.9	0.33	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.8	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	123		70-130
Dibromofluoromethane	97		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-05 D
 Client ID: RB11_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:35
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/06/19 15:45
 Analyst: JC
 Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	600	280	2
1,1-Dichloroethane	ND		ug/kg	120	18.	2
Chloroform	ND		ug/kg	180	17.	2
Carbon tetrachloride	ND		ug/kg	120	28.	2
1,2-Dichloropropane	ND		ug/kg	120	15.	2
Dibromochloromethane	ND		ug/kg	120	17.	2
1,1,2-Trichloroethane	ND		ug/kg	120	32.	2
Tetrachloroethene	ND		ug/kg	60	24.	2
Chlorobenzene	ND		ug/kg	60	15.	2
Trichlorofluoromethane	ND		ug/kg	480	84.	2
1,2-Dichloroethane	ND		ug/kg	120	31.	2
1,1,1-Trichloroethane	ND		ug/kg	60	20.	2
Bromodichloromethane	ND		ug/kg	60	13.	2
trans-1,3-Dichloropropene	ND		ug/kg	120	33.	2
cis-1,3-Dichloropropene	ND		ug/kg	60	19.	2
1,3-Dichloropropene, Total	ND		ug/kg	60	19.	2
1,1-Dichloropropene	ND		ug/kg	60	19.	2
Bromoform	ND		ug/kg	480	30.	2
1,1,2,2-Tetrachloroethane	ND		ug/kg	60	20.	2
Benzene	ND		ug/kg	60	20.	2
Toluene	ND		ug/kg	120	66.	2
Ethylbenzene	260		ug/kg	120	17.	2
Chloromethane	ND		ug/kg	480	110	2
Bromomethane	ND		ug/kg	240	70.	2
Vinyl chloride	ND		ug/kg	120	40.	2
Chloroethane	ND		ug/kg	240	54.	2
1,1-Dichloroethene	ND		ug/kg	120	29.	2
trans-1,2-Dichloroethene	ND		ug/kg	180	16.	2

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-05 D

Date Collected: 01/02/19 10:35

Client ID: RB11_19-21

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	60	16.	2
1,2-Dichlorobenzene	ND		ug/kg	240	17.	2
1,3-Dichlorobenzene	ND		ug/kg	240	18.	2
1,4-Dichlorobenzene	ND		ug/kg	240	21.	2
Methyl tert butyl ether	ND		ug/kg	240	24.	2
p/m-Xylene	ND		ug/kg	240	68.	2
o-Xylene	ND		ug/kg	120	35.	2
Xylenes, Total	ND		ug/kg	120	35.	2
cis-1,2-Dichloroethene	ND		ug/kg	120	21.	2
1,2-Dichloroethene, Total	ND		ug/kg	120	16.	2
Dibromomethane	ND		ug/kg	240	29.	2
Styrene	ND		ug/kg	120	24.	2
Dichlorodifluoromethane	ND		ug/kg	1200	110	2
Acetone	ND		ug/kg	1200	580	2
Carbon disulfide	ND		ug/kg	1200	550	2
2-Butanone	ND		ug/kg	1200	270	2
Vinyl acetate	ND		ug/kg	1200	260	2
4-Methyl-2-pentanone	ND		ug/kg	1200	150	2
1,2,3-Trichloropropane	ND		ug/kg	240	15.	2
2-Hexanone	ND		ug/kg	1200	140	2
Bromochloromethane	ND		ug/kg	240	25.	2
2,2-Dichloropropane	ND		ug/kg	240	24.	2
1,2-Dibromoethane	ND		ug/kg	120	34.	2
1,3-Dichloropropane	ND		ug/kg	240	20.	2
1,1,1,2-Tetrachloroethane	ND		ug/kg	60	16.	2
Bromobenzene	ND		ug/kg	240	18.	2
n-Butylbenzene	4000		ug/kg	120	20.	2
sec-Butylbenzene	1400		ug/kg	120	18.	2
tert-Butylbenzene	160	J	ug/kg	240	14.	2
o-Chlorotoluene	ND		ug/kg	240	23.	2
p-Chlorotoluene	ND		ug/kg	240	13.	2
1,2-Dibromo-3-chloropropane	ND		ug/kg	360	120	2
Hexachlorobutadiene	ND		ug/kg	480	20.	2
Isopropylbenzene	3000		ug/kg	120	13.	2
p-Isopropyltoluene	580		ug/kg	120	13.	2
Naphthalene	2700		ug/kg	480	78.	2
Acrylonitrile	ND		ug/kg	480	140	2

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-05 D
 Client ID: RB11_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:35
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	9100		ug/kg	120	21.	2
1,2,3-Trichlorobenzene	ND		ug/kg	240	39.	2
1,2,4-Trichlorobenzene	ND		ug/kg	240	33.	2
1,3,5-Trimethylbenzene	250		ug/kg	240	23.	2
1,2,4-Trimethylbenzene	210	J	ug/kg	240	40.	2
1,4-Dioxane	ND		ug/kg	12000	4200	2
p-Diethylbenzene	3500		ug/kg	240	21.	2
p-Ethyltoluene	320		ug/kg	240	46.	2
1,2,4,5-Tetramethylbenzene	13000		ug/kg	240	23.	2
Ethyl ether	ND		ug/kg	240	41.	2
trans-1,4-Dichloro-2-butene	ND		ug/kg	600	170	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	165	Q	70-130
Dibromofluoromethane	92		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-06
 Client ID: RB11_28-30
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/06/19 16:10
 Analyst: JC
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.7	1.7	1
1,1-Dichloroethane	ND		ug/kg	0.74	0.11	1
Chloroform	0.17	J	ug/kg	1.1	0.10	1
Carbon tetrachloride	ND		ug/kg	0.74	0.17	1
1,2-Dichloropropane	ND		ug/kg	0.74	0.09	1
Dibromochloromethane	ND		ug/kg	0.74	0.10	1
1,1,2-Trichloroethane	ND		ug/kg	0.74	0.20	1
Tetrachloroethene	ND		ug/kg	0.37	0.14	1
Chlorobenzene	ND		ug/kg	0.37	0.09	1
Trichlorofluoromethane	ND		ug/kg	3.0	0.52	1
1,2-Dichloroethane	ND		ug/kg	0.74	0.19	1
1,1,1-Trichloroethane	ND		ug/kg	0.37	0.12	1
Bromodichloromethane	ND		ug/kg	0.37	0.08	1
trans-1,3-Dichloropropene	ND		ug/kg	0.74	0.20	1
cis-1,3-Dichloropropene	ND		ug/kg	0.37	0.12	1
1,3-Dichloropropene, Total	ND		ug/kg	0.37	0.12	1
1,1-Dichloropropene	ND		ug/kg	0.37	0.12	1
Bromoform	ND		ug/kg	3.0	0.18	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.37	0.12	1
Benzene	0.16	J	ug/kg	0.37	0.12	1
Toluene	ND		ug/kg	0.74	0.40	1
Ethylbenzene	11		ug/kg	0.74	0.10	1
Chloromethane	ND		ug/kg	3.0	0.69	1
Bromomethane	ND		ug/kg	1.5	0.43	1
Vinyl chloride	ND		ug/kg	0.74	0.25	1
Chloroethane	ND		ug/kg	1.5	0.34	1
1,1-Dichloroethene	ND		ug/kg	0.74	0.18	1
trans-1,2-Dichloroethene	ND		ug/kg	1.1	0.10	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-06

Date Collected: 01/02/19 10:40

Client ID: RB11_28-30

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.37	0.10	1
1,2-Dichlorobenzene	ND		ug/kg	1.5	0.11	1
1,3-Dichlorobenzene	ND		ug/kg	1.5	0.11	1
1,4-Dichlorobenzene	ND		ug/kg	1.5	0.13	1
Methyl tert butyl ether	ND		ug/kg	1.5	0.15	1
p/m-Xylene	ND		ug/kg	1.5	0.42	1
o-Xylene	ND		ug/kg	0.74	0.22	1
Xylenes, Total	ND		ug/kg	0.74	0.22	1
cis-1,2-Dichloroethene	ND		ug/kg	0.74	0.13	1
1,2-Dichloroethene, Total	ND		ug/kg	0.74	0.10	1
Dibromomethane	ND		ug/kg	1.5	0.18	1
Styrene	ND		ug/kg	0.74	0.14	1
Dichlorodifluoromethane	ND		ug/kg	7.4	0.68	1
Acetone	4.2	J	ug/kg	7.4	3.6	1
Carbon disulfide	ND		ug/kg	7.4	3.4	1
2-Butanone	ND		ug/kg	7.4	1.6	1
Vinyl acetate	ND		ug/kg	7.4	1.6	1
4-Methyl-2-pentanone	ND		ug/kg	7.4	0.95	1
1,2,3-Trichloropropane	ND		ug/kg	1.5	0.09	1
2-Hexanone	ND		ug/kg	7.4	0.88	1
Bromochloromethane	ND		ug/kg	1.5	0.15	1
2,2-Dichloropropane	ND		ug/kg	1.5	0.15	1
1,2-Dibromoethane	ND		ug/kg	0.74	0.21	1
1,3-Dichloropropane	ND		ug/kg	1.5	0.12	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.37	0.10	1
Bromobenzene	ND		ug/kg	1.5	0.11	1
n-Butylbenzene	1.4		ug/kg	0.74	0.12	1
sec-Butylbenzene	1.1		ug/kg	0.74	0.11	1
tert-Butylbenzene	0.31	J	ug/kg	1.5	0.09	1
o-Chlorotoluene	ND		ug/kg	1.5	0.14	1
p-Chlorotoluene	ND		ug/kg	1.5	0.08	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.2	0.74	1
Hexachlorobutadiene	ND		ug/kg	3.0	0.12	1
Isopropylbenzene	7.7		ug/kg	0.74	0.08	1
p-Isopropyltoluene	0.80		ug/kg	0.74	0.08	1
Naphthalene	16		ug/kg	3.0	0.48	1
Acrylonitrile	ND		ug/kg	3.0	0.85	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-06
 Client ID: RB11_28-30
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	12		ug/kg	0.74	0.13	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.5	0.24	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.5	0.20	1
1,3,5-Trimethylbenzene	0.53	J	ug/kg	1.5	0.14	1
1,2,4-Trimethylbenzene	0.62	J	ug/kg	1.5	0.25	1
1,4-Dioxane	ND		ug/kg	74	26.	1
p-Diethylbenzene	1.9		ug/kg	1.5	0.13	1
p-Ethyltoluene	0.83	J	ug/kg	1.5	0.28	1
1,2,4,5-Tetramethylbenzene	2.9		ug/kg	1.5	0.14	1
Ethyl ether	ND		ug/kg	1.5	0.25	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	3.7	1.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	92		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-07 D
 Client ID: SODUP03_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/06/19 16:36
 Analyst: JC
 Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	2900	1300	10
1,1-Dichloroethane	ND		ug/kg	570	83.	10
Chloroform	ND		ug/kg	860	80.	10
Carbon tetrachloride	ND		ug/kg	570	130	10
1,2-Dichloropropane	ND		ug/kg	570	72.	10
Dibromochloromethane	ND		ug/kg	570	80.	10
1,1,2-Trichloroethane	ND		ug/kg	570	150	10
Tetrachloroethene	ND		ug/kg	290	110	10
Chlorobenzene	ND		ug/kg	290	73.	10
Trichlorofluoromethane	ND		ug/kg	2300	400	10
1,2-Dichloroethane	ND		ug/kg	570	150	10
1,1,1-Trichloroethane	ND		ug/kg	290	96.	10
Bromodichloromethane	ND		ug/kg	290	62.	10
trans-1,3-Dichloropropene	ND		ug/kg	570	160	10
cis-1,3-Dichloropropene	ND		ug/kg	290	90.	10
1,3-Dichloropropene, Total	ND		ug/kg	290	90.	10
1,1-Dichloropropene	ND		ug/kg	290	91.	10
Bromoform	ND		ug/kg	2300	140	10
1,1,2,2-Tetrachloroethane	ND		ug/kg	290	95.	10
Benzene	2500		ug/kg	290	95.	10
Toluene	360	J	ug/kg	570	310	10
Ethylbenzene	1600		ug/kg	570	81.	10
Chloromethane	ND		ug/kg	2300	530	10
Bromomethane	ND		ug/kg	1100	330	10
Vinyl chloride	ND		ug/kg	570	190	10
Chloroethane	ND		ug/kg	1100	260	10
1,1-Dichloroethene	ND		ug/kg	570	140	10
trans-1,2-Dichloroethene	ND		ug/kg	860	78.	10

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-07 D

Date Collected: 01/02/19 00:00

Client ID: SODUP03_010219

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	290	78.	10
1,2-Dichlorobenzene	ND		ug/kg	1100	82.	10
1,3-Dichlorobenzene	ND		ug/kg	1100	85.	10
1,4-Dichlorobenzene	ND		ug/kg	1100	98.	10
Methyl tert butyl ether	ND		ug/kg	1100	120	10
p/m-Xylene	1100		ug/kg	1100	320	10
o-Xylene	170	J	ug/kg	570	170	10
Xylenes, Total	1300	J	ug/kg	570	170	10
cis-1,2-Dichloroethene	ND		ug/kg	570	100	10
1,2-Dichloroethene, Total	ND		ug/kg	570	78.	10
Dibromomethane	ND		ug/kg	1100	140	10
Styrene	ND		ug/kg	570	110	10
Dichlorodifluoromethane	ND		ug/kg	5700	520	10
Acetone	ND		ug/kg	5700	2800	10
Carbon disulfide	ND		ug/kg	5700	2600	10
2-Butanone	ND		ug/kg	5700	1300	10
Vinyl acetate	ND		ug/kg	5700	1200	10
4-Methyl-2-pentanone	ND		ug/kg	5700	730	10
1,2,3-Trichloropropane	ND		ug/kg	1100	73.	10
2-Hexanone	ND		ug/kg	5700	680	10
Bromochloromethane	ND		ug/kg	1100	120	10
2,2-Dichloropropane	ND		ug/kg	1100	120	10
1,2-Dibromoethane	ND		ug/kg	570	160	10
1,3-Dichloropropane	ND		ug/kg	1100	96.	10
1,1,1,2-Tetrachloroethane	ND		ug/kg	290	76.	10
Bromobenzene	ND		ug/kg	1100	83.	10
n-Butylbenzene	14000		ug/kg	570	96.	10
sec-Butylbenzene	5300		ug/kg	570	84.	10
tert-Butylbenzene	540	J	ug/kg	1100	68.	10
o-Chlorotoluene	ND		ug/kg	1100	110	10
p-Chlorotoluene	ND		ug/kg	1100	62.	10
1,2-Dibromo-3-chloropropane	ND		ug/kg	1700	570	10
Hexachlorobutadiene	ND		ug/kg	2300	97.	10
Isopropylbenzene	19000		ug/kg	570	62.	10
p-Isopropyltoluene	710		ug/kg	570	62.	10
Naphthalene	1200	J	ug/kg	2300	370	10
Acrylonitrile	ND		ug/kg	2300	660	10

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-07 D
 Client ID: SODUP03_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	44000		ug/kg	570	98.	10
1,2,3-Trichlorobenzene	ND		ug/kg	1100	180	10
1,2,4-Trichlorobenzene	ND		ug/kg	1100	160	10
1,3,5-Trimethylbenzene	250	J	ug/kg	1100	110	10
1,2,4-Trimethylbenzene	ND		ug/kg	1100	190	10
1,4-Dioxane	ND		ug/kg	57000	20000	10
p-Diethylbenzene	11000		ug/kg	1100	100	10
p-Ethyltoluene	2300		ug/kg	1100	220	10
1,2,4,5-Tetramethylbenzene	36000		ug/kg	1100	110	10
Ethyl ether	ND		ug/kg	1100	200	10
trans-1,4-Dichloro-2-butene	ND		ug/kg	2900	810	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	108		70-130
4-Bromofluorobenzene	146	Q	70-130
Dibromofluoromethane	80		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-08
 Client ID: SOTB04_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/03/19 18:47
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-08
 Client ID: SOTB04_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	2.1	J	ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-08
 Client ID: SOTB04_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	106		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	103		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/03/19 10:18
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 08 Batch: WG1194582-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/03/19 10:18
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 08 Batch: WG1194582-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/03/19 10:18
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 08 Batch: WG1194582-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	113		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	100		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/06/19 11:06
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,05,07 Batch: WG1195272-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	39	J	ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/06/19 11:06
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,05,07 Batch: WG1195272-5					
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/06/19 11:06
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02,05,07 Batch: WG1195272-5					
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	5000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	95		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/06/19 11:06
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-04,06 Batch: WG1195274-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	0.77	J	ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/06/19 11:06
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-04,06 Batch: WG1195274-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/06/19 11:06
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01,03-04,06 Batch: WG1195274-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	95		70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08 Batch: WG1194582-3 WG1194582-4								
Methylene chloride	99		98		70-130	1		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	99		100		70-130	1		20
Carbon tetrachloride	90		88		63-132	2		20
1,2-Dichloropropane	100		110		70-130	10		20
Dibromochloromethane	96		95		63-130	1		20
1,1,2-Trichloroethane	110		110		70-130	0		20
Tetrachloroethene	86		85		70-130	1		20
Chlorobenzene	98		99		75-130	1		20
Trichlorofluoromethane	92		90		62-150	2		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	91		89		67-130	2		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	85		85		70-130	0		20
cis-1,3-Dichloropropene	90		91		70-130	1		20
1,1-Dichloropropene	100		100		70-130	0		20
Bromoform	100		95		54-136	5		20
1,1,2,2-Tetrachloroethane	120		110		67-130	9		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	69		72		64-130	4		20
Bromomethane	49		48		39-139	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08 Batch: WG1194582-3 WG1194582-4								
Vinyl chloride	94		93		55-140	1		20
Chloroethane	100		98		55-138	2		20
1,1-Dichloroethene	92		90		61-145	2		20
trans-1,2-Dichloroethene	96		96		70-130	0		20
Trichloroethene	98		97		70-130	1		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		99		70-130	1		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	85		88		63-130	3		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	98		98		70-130	0		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	120		110		64-130	9		20
Acrylonitrile	120		120		70-130	0		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	56		55		36-147	2		20
Acetone	130		130		58-148	0		20
Carbon disulfide	86		86		51-130	0		20
2-Butanone	140	Q	140	Q	63-138	0		20
Vinyl acetate	130		130		70-130	0		20
4-Methyl-2-pentanone	110		110		59-130	0		20
2-Hexanone	120		120		57-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08 Batch: WG1194582-3 WG1194582-4								
Bromochloromethane	99		100		70-130	1		20
2,2-Dichloropropane	67		64		63-133	5		20
1,2-Dibromoethane	99		100		70-130	1		20
1,3-Dichloropropane	110		110		70-130	0		20
1,1,1,2-Tetrachloroethane	93		94		64-130	1		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	120		110		53-136	9		20
sec-Butylbenzene	110		110		70-130	0		20
tert-Butylbenzene	110		110		70-130	0		20
o-Chlorotoluene	110		110		70-130	0		20
p-Chlorotoluene	110		110		70-130	0		20
1,2-Dibromo-3-chloropropane	92		94		41-144	2		20
Hexachlorobutadiene	100		98		63-130	2		20
Isopropylbenzene	110		110		70-130	0		20
p-Isopropyltoluene	110		110		70-130	0		20
Naphthalene	110		110		70-130	0		20
n-Propylbenzene	120		110		69-130	9		20
1,2,3-Trichlorobenzene	100		100		70-130	0		20
1,2,4-Trichlorobenzene	99		99		70-130	0		20
1,3,5-Trimethylbenzene	110		110		64-130	0		20
1,2,4-Trimethylbenzene	110		110		70-130	0		20
1,4-Dioxane	120		120		56-162	0		20
p-Diethylbenzene	110		110		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900156

Report Date: 01/09/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 08 Batch: WG1194582-3 WG1194582-4								
p-Ethyltoluene	110		110		70-130	0		20
1,2,4,5-Tetramethylbenzene	110		100		70-130	10		20
Ethyl ether	100		100		59-134	0		20
trans-1,4-Dichloro-2-butene	100		100		70-130	0		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	110		112		70-130
Toluene-d8	105		105		70-130
4-Bromofluorobenzene	113		112		70-130
Dibromofluoromethane	98		99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,05,07 Batch: WG1195272-3 WG1195272-4								
Methylene chloride	97		94		70-130	3		30
1,1-Dichloroethane	102		98		70-130	4		30
Chloroform	102		98		70-130	4		30
Carbon tetrachloride	105		100		70-130	5		30
1,2-Dichloropropane	100		95		70-130	5		30
Dibromochloromethane	104		102		70-130	2		30
1,1,2-Trichloroethane	100		100		70-130	0		30
Tetrachloroethene	108		105		70-130	3		30
Chlorobenzene	105		102		70-130	3		30
Trichlorofluoromethane	96		94		70-139	2		30
1,2-Dichloroethane	99		96		70-130	3		30
1,1,1-Trichloroethane	105		101		70-130	4		30
Bromodichloromethane	102		98		70-130	4		30
trans-1,3-Dichloropropene	104		102		70-130	2		30
cis-1,3-Dichloropropene	102		100		70-130	2		30
1,1-Dichloropropene	107		102		70-130	5		30
Bromoform	106		105		70-130	1		30
1,1,2,2-Tetrachloroethane	101		98		70-130	3		30
Benzene	102		98		70-130	4		30
Toluene	106		103		70-130	3		30
Ethylbenzene	108		104		70-130	4		30
Chloromethane	102		96		52-130	6		30
Bromomethane	98		92		57-147	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,05,07 Batch: WG1195272-3 WG1195272-4								
Vinyl chloride	98		93		67-130	5		30
Chloroethane	95		93		50-151	2		30
1,1-Dichloroethene	106		100		65-135	6		30
trans-1,2-Dichloroethene	105		99		70-130	6		30
Trichloroethene	106		100		70-130	6		30
1,2-Dichlorobenzene	108		103		70-130	5		30
1,3-Dichlorobenzene	112		105		70-130	6		30
1,4-Dichlorobenzene	109		104		70-130	5		30
Methyl tert butyl ether	99		98		66-130	1		30
p/m-Xylene	108		105		70-130	3		30
o-Xylene	107		105		70-130	2		30
cis-1,2-Dichloroethene	102		99		70-130	3		30
Dibromomethane	98		97		70-130	1		30
Styrene	108		106		70-130	2		30
Dichlorodifluoromethane	104		95		30-146	9		30
Acetone	96		96		54-140	0		30
Carbon disulfide	98		93		59-130	5		30
2-Butanone	94		94		70-130	0		30
Vinyl acetate	96		95		70-130	1		30
4-Methyl-2-pentanone	94		97		70-130	3		30
1,2,3-Trichloropropane	101		100		68-130	1		30
2-Hexanone	94		96		70-130	2		30
Bromochloromethane	102		99		70-130	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,05,07 Batch: WG1195272-3 WG1195272-4								
2,2-Dichloropropane	107		102		70-130	5		30
1,2-Dibromoethane	101		102		70-130	1		30
1,3-Dichloropropane	101		101		69-130	0		30
1,1,1,2-Tetrachloroethane	109		105		70-130	4		30
Bromobenzene	112		104		70-130	7		30
n-Butylbenzene	111		106		70-130	5		30
sec-Butylbenzene	112		107		70-130	5		30
tert-Butylbenzene	117		108		70-130	8		30
o-Chlorotoluene	130		123		70-130	6		30
p-Chlorotoluene	112		106		70-130	6		30
1,2-Dibromo-3-chloropropane	100		98		68-130	2		30
Hexachlorobutadiene	107		103		67-130	4		30
Isopropylbenzene	113		108		70-130	5		30
p-Isopropyltoluene	114		108		70-130	5		30
Naphthalene	104		103		70-130	1		30
Acrylonitrile	95		97		70-130	2		30
n-Propylbenzene	115		107		70-130	7		30
1,2,3-Trichlorobenzene	106		102		70-130	4		30
1,2,4-Trichlorobenzene	109		105		70-130	4		30
1,3,5-Trimethylbenzene	113		107		70-130	5		30
1,2,4-Trimethylbenzene	113		107		70-130	5		30
1,4-Dioxane	97		99		65-136	2		30
p-Diethylbenzene	115		107		70-130	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900156

Report Date: 01/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,05,07 Batch: WG1195272-3 WG1195272-4								
p-Ethyltoluene	113		108		70-130	5		30
1,2,4,5-Tetramethylbenzene	112		107		70-130	5		30
Ethyl ether	101		96		67-130	5		30
trans-1,4-Dichloro-2-butene	104		103		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	89		92		70-130
Toluene-d8	97		99		70-130
4-Bromofluorobenzene	102		100		70-130
Dibromofluoromethane	95		95		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG1195274-3 WG1195274-4								
Methylene chloride	97		94		70-130	3		30
1,1-Dichloroethane	102		98		70-130	4		30
Chloroform	102		98		70-130	4		30
Carbon tetrachloride	105		100		70-130	5		30
1,2-Dichloropropane	100		95		70-130	5		30
Dibromochloromethane	104		102		70-130	2		30
1,1,2-Trichloroethane	100		100		70-130	0		30
Tetrachloroethene	108		105		70-130	3		30
Chlorobenzene	105		102		70-130	3		30
Trichlorofluoromethane	96		94		70-139	2		30
1,2-Dichloroethane	99		96		70-130	3		30
1,1,1-Trichloroethane	105		101		70-130	4		30
Bromodichloromethane	102		98		70-130	4		30
trans-1,3-Dichloropropene	104		102		70-130	2		30
cis-1,3-Dichloropropene	102		100		70-130	2		30
1,1-Dichloropropene	107		102		70-130	5		30
Bromoform	106		105		70-130	1		30
1,1,2,2-Tetrachloroethane	101		98		70-130	3		30
Benzene	102		98		70-130	4		30
Toluene	106		103		70-130	3		30
Ethylbenzene	108		104		70-130	4		30
Chloromethane	102		96		52-130	6		30
Bromomethane	98		92		57-147	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG1195274-3 WG1195274-4								
Vinyl chloride	98		93		67-130	5		30
Chloroethane	95		93		50-151	2		30
1,1-Dichloroethene	106		100		65-135	6		30
trans-1,2-Dichloroethene	105		99		70-130	6		30
Trichloroethene	106		100		70-130	6		30
1,2-Dichlorobenzene	108		103		70-130	5		30
1,3-Dichlorobenzene	112		105		70-130	6		30
1,4-Dichlorobenzene	109		104		70-130	5		30
Methyl tert butyl ether	99		98		66-130	1		30
p/m-Xylene	108		105		70-130	3		30
o-Xylene	107		105		70-130	2		30
cis-1,2-Dichloroethene	102		99		70-130	3		30
Dibromomethane	98		97		70-130	1		30
Styrene	108		106		70-130	2		30
Dichlorodifluoromethane	104		95		30-146	9		30
Acetone	96		96		54-140	0		30
Carbon disulfide	98		93		59-130	5		30
2-Butanone	94		94		70-130	0		30
Vinyl acetate	96		95		70-130	1		30
4-Methyl-2-pentanone	94		97		70-130	3		30
1,2,3-Trichloropropane	101		100		68-130	1		30
2-Hexanone	94		96		70-130	2		30
Bromochloromethane	102		99		70-130	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG1195274-3 WG1195274-4								
2,2-Dichloropropane	107		102		70-130	5		30
1,2-Dibromoethane	101		102		70-130	1		30
1,3-Dichloropropane	101		101		69-130	0		30
1,1,1,2-Tetrachloroethane	109		105		70-130	4		30
Bromobenzene	112		104		70-130	7		30
n-Butylbenzene	111		106		70-130	5		30
sec-Butylbenzene	112		107		70-130	5		30
tert-Butylbenzene	117		108		70-130	8		30
o-Chlorotoluene	130		123		70-130	6		30
p-Chlorotoluene	112		106		70-130	6		30
1,2-Dibromo-3-chloropropane	100		98		68-130	2		30
Hexachlorobutadiene	107		103		67-130	4		30
Isopropylbenzene	113		108		70-130	5		30
p-Isopropyltoluene	114		108		70-130	5		30
Naphthalene	104		103		70-130	1		30
Acrylonitrile	95		97		70-130	2		30
n-Propylbenzene	115		107		70-130	7		30
1,2,3-Trichlorobenzene	106		102		70-130	4		30
1,2,4-Trichlorobenzene	109		105		70-130	4		30
1,3,5-Trimethylbenzene	113		107		70-130	5		30
1,2,4-Trimethylbenzene	113		107		70-130	5		30
1,4-Dioxane	97		99		65-136	2		30
p-Diethylbenzene	115		107		70-130	7		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900156

Report Date: 01/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03-04,06 Batch: WG1195274-3 WG1195274-4								
p-Ethyltoluene	113		108		70-130	5		30
1,2,4,5-Tetramethylbenzene	112		107		70-130	5		30
Ethyl ether	101		96		67-130	5		30
trans-1,4-Dichloro-2-butene	104		103		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	89		91		70-130
Toluene-d8	97		99		70-130
4-Bromofluorobenzene	102		100		70-130
Dibromofluoromethane	94		95		70-130

SEMIVOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-01
 Client ID: RB09_0-2
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/04/19 17:45
 Analyst: SZ
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 16:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	200		ug/kg	130	17.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	19.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	23.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	30.	1
1,3-Dichlorobenzene	ND		ug/kg	170	29.	1
1,4-Dichlorobenzene	ND		ug/kg	170	29.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	45.	1
2,4-Dinitrotoluene	ND		ug/kg	170	34.	1
2,6-Dinitrotoluene	ND		ug/kg	170	29.	1
Fluoranthene	5300		ug/kg	100	19.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	29.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.	1
Hexachlorobutadiene	ND		ug/kg	170	25.	1
Hexachlorocyclopentadiene	ND		ug/kg	480	150	1
Hexachloroethane	ND		ug/kg	130	27.	1
Isophorone	ND		ug/kg	150	22.	1
Naphthalene	130	J	ug/kg	170	20.	1
Nitrobenzene	ND		ug/kg	150	25.	1
NDPA/DPA	ND		ug/kg	130	19.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	26.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	58.	1
Butyl benzyl phthalate	ND		ug/kg	170	42.	1
Di-n-butylphthalate	ND		ug/kg	170	32.	1
Di-n-octylphthalate	ND		ug/kg	170	57.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-01

Date Collected: 01/02/19 13:40

Client ID: RB09_0-2

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	35.	1
Benzo(a)anthracene	2700		ug/kg	100	19.	1
Benzo(a)pyrene	2400		ug/kg	130	41.	1
Benzo(b)fluoranthene	3000		ug/kg	100	28.	1
Benzo(k)fluoranthene	990		ug/kg	100	27.	1
Chrysene	2500		ug/kg	100	18.	1
Acenaphthylene	130		ug/kg	130	26.	1
Anthracene	700		ug/kg	100	33.	1
Benzo(ghi)perylene	1400		ug/kg	130	20.	1
Fluorene	180		ug/kg	170	16.	1
Phenanthrene	3200		ug/kg	100	20.	1
Dibenzo(a,h)anthracene	380		ug/kg	100	19.	1
Indeno(1,2,3-cd)pyrene	1500		ug/kg	130	24.	1
Pyrene	4700		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	380	39.	1
4-Chloroaniline	ND		ug/kg	170	31.	1
2-Nitroaniline	ND		ug/kg	170	32.	1
3-Nitroaniline	ND		ug/kg	170	32.	1
4-Nitroaniline	ND		ug/kg	170	70.	1
Dibenzofuran	110	J	ug/kg	170	16.	1
2-Methylnaphthalene	53	J	ug/kg	200	20.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	ND		ug/kg	170	21.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	32.	1
p-Chloro-m-cresol	ND		ug/kg	170	25.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	150	27.	1
2,4-Dimethylphenol	ND		ug/kg	170	56.	1
2-Nitrophenol	ND		ug/kg	360	63.	1
4-Nitrophenol	ND		ug/kg	240	69.	1
2,4-Dinitrophenol	ND		ug/kg	810	78.	1
4,6-Dinitro-o-cresol	ND		ug/kg	440	81.	1
Pentachlorophenol	ND		ug/kg	130	37.	1
Phenol	ND		ug/kg	170	25.	1
2-Methylphenol	ND		ug/kg	170	26.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-01
 Client ID: RB09_0-2
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	32.	1
Benzoic Acid	ND		ug/kg	550	170	1
Benzyl Alcohol	ND		ug/kg	170	52.	1
Carbazole	250		ug/kg	170	16.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	86		25-120
Phenol-d6	86		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	88		30-120
2,4,6-Tribromophenol	85		10-136
4-Terphenyl-d14	80		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-02
 Client ID: RB09_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:45
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/04/19 17:19
 Analyst: SZ
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 16:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	74	J	ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	330		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	6400		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-02

Date Collected: 01/02/19 13:45

Client ID: RB09_19-21

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	140		ug/kg	110	21.	1
Benzo(a)pyrene	110	J	ug/kg	150	46.	1
Benzo(b)fluoranthene	130		ug/kg	110	32.	1
Benzo(k)fluoranthene	44	J	ug/kg	110	30.	1
Chrysene	130		ug/kg	110	20.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	100	J	ug/kg	110	37.	1
Benzo(ghi)perylene	82	J	ug/kg	150	22.	1
Fluorene	100	J	ug/kg	190	18.	1
Phenanthrene	400		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	69	J	ug/kg	150	26.	1
Pyrene	320		ug/kg	110	19.	1
Biphenyl	ND		ug/kg	430	44.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	79.	1
Dibenzofuran	47	J	ug/kg	190	18.	1
2-Methylnaphthalene	7600		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	30.	1
2,4-Dimethylphenol	ND		ug/kg	190	63.	1
2-Nitrophenol	ND		ug/kg	410	72.	1
4-Nitrophenol	ND		ug/kg	270	78.	1
2,4-Dinitrophenol	ND		ug/kg	910	89.	1
4,6-Dinitro-o-cresol	ND		ug/kg	490	91.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	29.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-02
 Client ID: RB09_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:45
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Benzoic Acid	ND		ug/kg	620	190	1
Benzyl Alcohol	ND		ug/kg	190	58.	1
Carbazole	27	J	ug/kg	190	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	87		25-120
Phenol-d6	91		10-120
Nitrobenzene-d5	115		23-120
2-Fluorobiphenyl	88		30-120
2,4,6-Tribromophenol	92		10-136
4-Terphenyl-d14	81		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-03
 Client ID: RB09_28-30
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:50
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/04/19 16:02
 Analyst: SZ
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 16:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	26.	1
2-Chloronaphthalene	ND		ug/kg	200	19.	1
1,2-Dichlorobenzene	ND		ug/kg	200	35.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	39.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	25.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	49.	1
Di-n-butylphthalate	ND		ug/kg	200	37.	1
Di-n-octylphthalate	ND		ug/kg	200	66.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-03

Date Collected: 01/02/19 13:50

Client ID: RB09_28-30

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	41.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	27.	1
Pyrene	ND		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	81.	1
Dibenzofuran	ND		ug/kg	200	18.	1
2-Methylnaphthalene	ND		ug/kg	230	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	20.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
p-Chloro-m-cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	31.	1
2,4-Dimethylphenol	ND		ug/kg	200	64.	1
2-Nitrophenol	ND		ug/kg	420	73.	1
4-Nitrophenol	ND		ug/kg	270	80.	1
2,4-Dinitrophenol	ND		ug/kg	940	91.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	94.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-03
 Client ID: RB09_28-30
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:50
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	37.	1
Benzoic Acid	ND		ug/kg	630	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	90		25-120
Phenol-d6	89		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	92		30-120
2,4,6-Tribromophenol	88		10-136
4-Terphenyl-d14	85		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-04
 Client ID: RB11_0-2
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:30
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/04/19 18:10
 Analyst: SZ
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 16:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	58	J	ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	20.	1
Hexachlorobenzene	ND		ug/kg	100	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	17.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	30.	1
1,4-Dichlorobenzene	ND		ug/kg	180	31.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	47.	1
2,4-Dinitrotoluene	ND		ug/kg	180	35.	1
2,6-Dinitrotoluene	ND		ug/kg	180	30.	1
Fluoranthene	920		ug/kg	100	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	27.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	30.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	500	160	1
Hexachloroethane	ND		ug/kg	140	28.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	630		ug/kg	180	21.	1
Nitrobenzene	ND		ug/kg	160	26.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	27.	1
Bis(2-ethylhexyl)phthalate	340		ug/kg	180	61.	1
Butyl benzyl phthalate	ND		ug/kg	180	44.	1
Di-n-butylphthalate	ND		ug/kg	180	33.	1
Di-n-octylphthalate	ND		ug/kg	180	60.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-04

Date Collected: 01/02/19 10:30

Client ID: RB11_0-2

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	16.	1
Dimethyl phthalate	ND		ug/kg	180	37.	1
Benzo(a)anthracene	410		ug/kg	100	20.	1
Benzo(a)pyrene	350		ug/kg	140	43.	1
Benzo(b)fluoranthene	470		ug/kg	100	30.	1
Benzo(k)fluoranthene	140		ug/kg	100	28.	1
Chrysene	370		ug/kg	100	18.	1
Acenaphthylene	30	J	ug/kg	140	27.	1
Anthracene	230		ug/kg	100	34.	1
Benzo(ghi)perylene	310		ug/kg	140	21.	1
Fluorene	69	J	ug/kg	180	17.	1
Phenanthrene	950		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	64	J	ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	270		ug/kg	140	24.	1
Pyrene	830		ug/kg	100	18.	1
Biphenyl	ND		ug/kg	400	41.	1
4-Chloroaniline	ND		ug/kg	180	32.	1
2-Nitroaniline	ND		ug/kg	180	34.	1
3-Nitroaniline	ND		ug/kg	180	33.	1
4-Nitroaniline	ND		ug/kg	180	73.	1
Dibenzofuran	51	J	ug/kg	180	17.	1
2-Methylnaphthalene	720		ug/kg	210	21.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	18.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	33.	1
p-Chloro-m-cresol	ND		ug/kg	180	26.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	28.	1
2,4-Dimethylphenol	ND		ug/kg	180	58.	1
2-Nitrophenol	ND		ug/kg	380	66.	1
4-Nitrophenol	ND		ug/kg	250	72.	1
2,4-Dinitrophenol	ND		ug/kg	850	82.	1
4,6-Dinitro-o-cresol	ND		ug/kg	460	85.	1
Pentachlorophenol	ND		ug/kg	140	39.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	27.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	28.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-04
 Client ID: RB11_0-2
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:30
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	34.	1
Benzoic Acid	ND		ug/kg	570	180	1
Benzyl Alcohol	ND		ug/kg	180	54.	1
Carbazole	42	J	ug/kg	180	17.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	47		25-120
Phenol-d6	80		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	96		30-120
2,4,6-Tribromophenol	11		10-136
4-Terphenyl-d14	86		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-05
 Client ID: RB11_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:35
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/04/19 16:54
 Analyst: SZ
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 16:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	27	J	ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	64	J	ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	32.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	1900		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	29.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-05

Date Collected: 01/02/19 10:35

Client ID: RB11_19-21

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	33	J	ug/kg	110	21.	1
Benzo(a)pyrene	ND		ug/kg	150	46.	1
Benzo(b)fluoranthene	32	J	ug/kg	110	32.	1
Benzo(k)fluoranthene	ND		ug/kg	110	30.	1
Chrysene	28	J	ug/kg	110	20.	1
Acenaphthylene	ND		ug/kg	150	29.	1
Anthracene	ND		ug/kg	110	37.	1
Benzo(ghi)perylene	26	J	ug/kg	150	22.	1
Fluorene	65	J	ug/kg	190	18.	1
Phenanthrene	100	J	ug/kg	110	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	26.	1
Pyrene	72	J	ug/kg	110	19.	1
Biphenyl	ND		ug/kg	430	44.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	79.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	10000	E	ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	22.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	63.	1
2-Nitrophenol	ND		ug/kg	410	72.	1
4-Nitrophenol	ND		ug/kg	270	78.	1
2,4-Dinitrophenol	ND		ug/kg	920	89.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	92.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	30.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-05
 Client ID: RB11_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:35
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	36.	1
Benzoic Acid	ND		ug/kg	620	190	1
Benzyl Alcohol	ND		ug/kg	190	58.	1
Carbazole	ND		ug/kg	190	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	80		25-120
Phenol-d6	85		10-120
Nitrobenzene-d5	112		23-120
2-Fluorobiphenyl	84		30-120
2,4,6-Tribromophenol	86		10-136
4-Terphenyl-d14	74		18-120

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-05 D

Date Collected: 01/02/19 10:35

Client ID: RB11_19-21

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8270D

Extraction Date: 01/03/19 16:56

Analytical Date: 01/08/19 12:49

Analyst: JG

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2-Methylnaphthalene	9500		ug/kg	1100	120	5

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-06
 Client ID: RB11_28-30
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/04/19 16:28
 Analyst: SZ
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 16:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	33.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	ND		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	24.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	220		ug/kg	180	63.	1
Butyl benzyl phthalate	96	J	ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	62.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-06

Date Collected: 01/02/19 10:40

Client ID: RB11_28-30

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	ND		ug/kg	110	20.	1
Benzo(a)pyrene	ND		ug/kg	140	44.	1
Benzo(b)fluoranthene	ND		ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	36.	1
Benzo(ghi)perylene	ND		ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	25.	1
Pyrene	ND		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	42.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	75.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	28	J	ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	22.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	60.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	260	74.	1
2,4-Dinitrophenol	ND		ug/kg	880	85.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	88.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	28.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-06
 Client ID: RB11_28-30
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	590	180	1
Benzyl Alcohol	ND		ug/kg	180	56.	1
Carbazole	ND		ug/kg	180	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	91		25-120
Phenol-d6	90		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	91		30-120
2,4,6-Tribromophenol	90		10-136
4-Terphenyl-d14	85		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-07
 Client ID: SODUP03_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/04/19 18:36
 Analyst: SZ
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 16:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	140	J	ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	35.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	670		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	16000	E	ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	66.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-07
 Client ID: SODUP03_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	270		ug/kg	120	22.	1
Benzo(a)pyrene	210		ug/kg	150	47.	1
Benzo(b)fluoranthene	250		ug/kg	120	32.	1
Benzo(k)fluoranthene	83	J	ug/kg	120	31.	1
Chrysene	250		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	150	30.	1
Anthracene	200		ug/kg	120	38.	1
Benzo(ghi)perylene	140	J	ug/kg	150	23.	1
Fluorene	190		ug/kg	190	19.	1
Phenanthrene	830		ug/kg	120	23.	1
Dibenzo(a,h)anthracene	35	J	ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	120	J	ug/kg	150	27.	1
Pyrene	660		ug/kg	120	19.	1
Biphenyl	130	J	ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	80.	1
Dibenzofuran	93	J	ug/kg	190	18.	1
2-Methylnaphthalene	18000	E	ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	72.	1
4-Nitrophenol	ND		ug/kg	270	79.	1
2,4-Dinitrophenol	ND		ug/kg	920	90.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	92.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-07
 Client ID: SODUP03_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	620	200	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	40	J	ug/kg	190	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	82		25-120
Phenol-d6	88		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	101		30-120
2,4,6-Tribromophenol	93		10-136
4-Terphenyl-d14	89		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-07 D
 Client ID: SODUP03_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/08/19 12:23
 Analyst: JG
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 16:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Naphthalene	21000		ug/kg	960	120	5
2-Methylnaphthalene	19000		ug/kg	1200	120	5

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/04/19 20:30
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 01/03/19 16:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1194535-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	18.
Hexachlorobenzene	ND		ug/kg	97	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	28.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	32.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	97	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	17.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	190	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	460	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	18.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	56.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	55.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/04/19 20:30
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 01/03/19 16:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1194535-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	97	16.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	31.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	67.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	190	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	97	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	61.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 01/04/19 20:30
Analyst: RC

Extraction Method: EPA 3546
Extraction Date: 01/03/19 16:55

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-07 Batch: WG1194535-1					
4-Nitrophenol	ND		ug/kg	230	66.
2,4-Dinitrophenol	ND		ug/kg	780	76.
4,6-Dinitro-o-cresol	ND		ug/kg	420	78.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	24.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	230	25.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	530	160
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	95		25-120
Phenol-d6	99		10-120
Nitrobenzene-d5	99		23-120
2-Fluorobiphenyl	110		30-120
2,4,6-Tribromophenol	116		10-136
4-Terphenyl-d14	117		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1194535-2 WG1194535-3								
Acenaphthene	88		90		31-137	2		50
1,2,4-Trichlorobenzene	97		102		38-107	5		50
Hexachlorobenzene	104		109		40-140	5		50
Bis(2-chloroethyl)ether	90		95		40-140	5		50
2-Chloronaphthalene	105		109		40-140	4		50
1,2-Dichlorobenzene	90		92		40-140	2		50
1,3-Dichlorobenzene	88		91		40-140	3		50
1,4-Dichlorobenzene	89		92		28-104	3		50
3,3'-Dichlorobenzidine	65		66		40-140	2		50
2,4-Dinitrotoluene	96		99		40-132	3		50
2,6-Dinitrotoluene	111		116		40-140	4		50
Fluoranthene	106		111		40-140	5		50
4-Chlorophenyl phenyl ether	95		98		40-140	3		50
4-Bromophenyl phenyl ether	102		106		40-140	4		50
Bis(2-chloroisopropyl)ether	87		90		40-140	3		50
Bis(2-chloroethoxy)methane	95		101		40-117	6		50
Hexachlorobutadiene	105		110		40-140	5		50
Hexachlorocyclopentadiene	89		93		40-140	4		50
Hexachloroethane	87		88		40-140	1		50
Isophorone	96		100		40-140	4		50
Naphthalene	96		98		40-140	2		50
Nitrobenzene	90		95		40-140	5		50
NDPA/DPA	100		98		36-157	2		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1194535-2 WG1194535-3								
n-Nitrosodi-n-propylamine	93		97		32-121	4		50
Bis(2-ethylhexyl)phthalate	102		106		40-140	4		50
Butyl benzyl phthalate	105		111		40-140	6		50
Di-n-butylphthalate	109		112		40-140	3		50
Di-n-octylphthalate	103		110		40-140	7		50
Diethyl phthalate	94		96		40-140	2		50
Dimethyl phthalate	114		117		40-140	3		50
Benzo(a)anthracene	99		104		40-140	5		50
Benzo(a)pyrene	107		112		40-140	5		50
Benzo(b)fluoranthene	107		108		40-140	1		50
Benzo(k)fluoranthene	106		117		40-140	10		50
Chrysene	102		106		40-140	4		50
Acenaphthylene	110		114		40-140	4		50
Anthracene	105		109		40-140	4		50
Benzo(ghi)perylene	108		112		40-140	4		50
Fluorene	96		98		40-140	2		50
Phenanthrene	100		104		40-140	4		50
Dibenzo(a,h)anthracene	109		114		40-140	4		50
Indeno(1,2,3-cd)pyrene	108		112		40-140	4		50
Pyrene	108		112		35-142	4		50
Biphenyl	106	Q	110	Q	54-104	4		50
4-Chloroaniline	54		61		40-140	12		50
2-Nitroaniline	110		116		47-134	5		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1194535-2 WG1194535-3								
3-Nitroaniline	58		63		26-129	8		50
4-Nitroaniline	86		87		41-125	1		50
Dibenzofuran	93		95		40-140	2		50
2-Methylnaphthalene	100		104		40-140	4		50
1,2,4,5-Tetrachlorobenzene	108		112		40-117	4		50
Acetophenone	93		99		14-144	6		50
2,4,6-Trichlorophenol	113		119		30-130	5		50
p-Chloro-m-cresol	110	Q	117	Q	26-103	6		50
2-Chlorophenol	97		102		25-102	5		50
2,4-Dichlorophenol	110		114		30-130	4		50
2,4-Dimethylphenol	107		110		30-130	3		50
2-Nitrophenol	98		101		30-130	3		50
4-Nitrophenol	104		106		11-114	2		50
2,4-Dinitrophenol	82		83		4-130	1		50
4,6-Dinitro-o-cresol	97		100		10-130	3		50
Pentachlorophenol	93		96		17-109	3		50
Phenol	94	Q	98	Q	26-90	4		50
2-Methylphenol	98		103		30-130.	5		50
3-Methylphenol/4-Methylphenol	99		103		30-130	4		50
2,4,5-Trichlorophenol	122		126		30-130	3		50
Benzoic Acid	60		63		10-110	5		50
Benzyl Alcohol	102		106		40-140	4		50
Carbazole	103		108		54-128	5		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07 Batch: WG1194535-2 WG1194535-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	93		96		25-120
Phenol-d6	99		102		10-120
Nitrobenzene-d5	95		97		23-120
2-Fluorobiphenyl	110		112		30-120
2,4,6-Tribromophenol	115		113		10-136
4-Terphenyl-d14	111		113		18-120

PCBS

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-01
 Client ID: RB09_0-2
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/04/19 13:44
 Analyst: WR
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 14:12
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/04/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.1	2.94	1	A
Aroclor 1221	ND		ug/kg	33.1	3.32	1	A
Aroclor 1232	ND		ug/kg	33.1	7.02	1	A
Aroclor 1242	ND		ug/kg	33.1	4.46	1	A
Aroclor 1248	ND		ug/kg	33.1	4.97	1	A
Aroclor 1254	ND		ug/kg	33.1	3.62	1	A
Aroclor 1260	ND		ug/kg	33.1	6.12	1	A
Aroclor 1262	ND		ug/kg	33.1	4.20	1	A
Aroclor 1268	ND		ug/kg	33.1	3.43	1	A
PCBs, Total	ND		ug/kg	33.1	2.94	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	74		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-02
 Client ID: RB09_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:45
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/04/19 13:57
 Analyst: WR
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 14:12
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/04/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.4	3.32	1	A
Aroclor 1221	ND		ug/kg	37.4	3.75	1	A
Aroclor 1232	ND		ug/kg	37.4	7.93	1	A
Aroclor 1242	ND		ug/kg	37.4	5.04	1	A
Aroclor 1248	ND		ug/kg	37.4	5.61	1	A
Aroclor 1254	ND		ug/kg	37.4	4.09	1	A
Aroclor 1260	ND		ug/kg	37.4	6.91	1	A
Aroclor 1262	ND		ug/kg	37.4	4.75	1	A
Aroclor 1268	ND		ug/kg	37.4	3.87	1	A
PCBs, Total	ND		ug/kg	37.4	3.32	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	83		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-03
Client ID: RB09_28-30
Sample Location: BRONX, NY

Date Collected: 01/02/19 13:50
Date Received: 01/02/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 01/04/19 14:09
Analyst: WR
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 01/03/19 14:12
Cleanup Method: EPA 3665A
Cleanup Date: 01/04/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.3	3.49	1	A
Aroclor 1221	ND		ug/kg	39.3	3.94	1	A
Aroclor 1232	ND		ug/kg	39.3	8.34	1	A
Aroclor 1242	ND		ug/kg	39.3	5.30	1	A
Aroclor 1248	ND		ug/kg	39.3	5.90	1	A
Aroclor 1254	ND		ug/kg	39.3	4.30	1	A
Aroclor 1260	ND		ug/kg	39.3	7.27	1	A
Aroclor 1262	ND		ug/kg	39.3	5.00	1	A
Aroclor 1268	ND		ug/kg	39.3	4.08	1	A
PCBs, Total	ND		ug/kg	39.3	3.49	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	80		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-04
 Client ID: RB11_0-2
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:30
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/04/19 17:03
 Analyst: WR
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 14:12
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/04/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.1	3.11	1	A
Aroclor 1221	ND		ug/kg	35.1	3.51	1	A
Aroclor 1232	ND		ug/kg	35.1	7.43	1	A
Aroclor 1242	ND		ug/kg	35.1	4.73	1	A
Aroclor 1248	ND		ug/kg	35.1	5.26	1	A
Aroclor 1254	18.5	J	ug/kg	35.1	3.84	1	B
Aroclor 1260	11.7	J	ug/kg	35.1	6.48	1	A
Aroclor 1262	ND		ug/kg	35.1	4.45	1	A
Aroclor 1268	ND		ug/kg	35.1	3.63	1	A
PCBs, Total	30.2	J	ug/kg	35.1	3.11	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	73		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	77		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-05
 Client ID: RB11_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:35
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/04/19 17:16
 Analyst: WR
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 14:12
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/04/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.3	3.31	1	A
Aroclor 1221	ND		ug/kg	37.3	3.74	1	A
Aroclor 1232	ND		ug/kg	37.3	7.91	1	A
Aroclor 1242	ND		ug/kg	37.3	5.03	1	A
Aroclor 1248	ND		ug/kg	37.3	5.59	1	A
Aroclor 1254	ND		ug/kg	37.3	4.08	1	A
Aroclor 1260	ND		ug/kg	37.3	6.89	1	A
Aroclor 1262	ND		ug/kg	37.3	4.74	1	A
Aroclor 1268	ND		ug/kg	37.3	3.86	1	A
PCBs, Total	ND		ug/kg	37.3	3.31	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	84		30-150	A
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	89		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-06
 Client ID: RB11_28-30
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/04/19 17:28
 Analyst: WR
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 14:12
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/04/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.7	3.08	1	A
Aroclor 1221	ND		ug/kg	34.7	3.48	1	A
Aroclor 1232	ND		ug/kg	34.7	7.36	1	A
Aroclor 1242	ND		ug/kg	34.7	4.68	1	A
Aroclor 1248	ND		ug/kg	34.7	5.21	1	A
Aroclor 1254	ND		ug/kg	34.7	3.80	1	A
Aroclor 1260	ND		ug/kg	34.7	6.42	1	A
Aroclor 1262	ND		ug/kg	34.7	4.41	1	A
Aroclor 1268	ND		ug/kg	34.7	3.60	1	A
PCBs, Total	ND		ug/kg	34.7	3.08	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	73		30-150	A
Decachlorobiphenyl	71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	80		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-07
 Client ID: SODUP03_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/04/19 17:40
 Analyst: WR
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 14:12
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/04/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.6	3.43	1	A
Aroclor 1221	ND		ug/kg	38.6	3.87	1	A
Aroclor 1232	ND		ug/kg	38.6	8.19	1	A
Aroclor 1242	ND		ug/kg	38.6	5.21	1	A
Aroclor 1248	ND		ug/kg	38.6	5.80	1	A
Aroclor 1254	ND		ug/kg	38.6	4.23	1	A
Aroclor 1260	ND		ug/kg	38.6	7.14	1	A
Aroclor 1262	ND		ug/kg	38.6	4.91	1	A
Aroclor 1268	ND		ug/kg	38.6	4.00	1	A
PCBs, Total	ND		ug/kg	38.6	3.43	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	A
Decachlorobiphenyl	89		30-150	A
2,4,5,6-Tetrachloro-m-xylene	80		30-150	B
Decachlorobiphenyl	92		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8082A
 Analytical Date: 01/04/19 16:13
 Analyst: WR

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 14:12
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/04/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-07 Batch: WG1194469-1						
Aroclor 1016	ND		ug/kg	31.3	2.78	A
Aroclor 1221	ND		ug/kg	31.3	3.14	A
Aroclor 1232	ND		ug/kg	31.3	6.64	A
Aroclor 1242	ND		ug/kg	31.3	4.22	A
Aroclor 1248	ND		ug/kg	31.3	4.70	A
Aroclor 1254	ND		ug/kg	31.3	3.43	A
Aroclor 1260	ND		ug/kg	31.3	5.79	A
Aroclor 1262	ND		ug/kg	31.3	3.98	A
Aroclor 1268	ND		ug/kg	31.3	3.25	A
PCBs, Total	ND		ug/kg	31.3	2.78	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	79		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-07 Batch: WG1194469-2 WG1194469-3									
Aroclor 1016	74		78		40-140	5		50	A
Aroclor 1260	69		72		40-140	4		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		72		30-150	A
Decachlorobiphenyl	69		74		30-150	A
2,4,5,6-Tetrachloro-m-xylene	75		75		30-150	B
Decachlorobiphenyl	79		79		30-150	B



PESTICIDES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-01
 Client ID: RB09_0-2
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/04/19 19:09
 Analyst: BM
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 12:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.57	0.307	1	A
Lindane	ND		ug/kg	0.653	0.292	1	A
Alpha-BHC	ND		ug/kg	0.653	0.186	1	A
Beta-BHC	ND		ug/kg	1.57	0.595	1	A
Heptachlor	ND		ug/kg	0.784	0.352	1	A
Aldrin	ND		ug/kg	1.57	0.552	1	A
Heptachlor epoxide	ND		ug/kg	2.94	0.882	1	A
Endrin	ND		ug/kg	0.653	0.268	1	A
Endrin aldehyde	ND		ug/kg	1.96	0.686	1	A
Endrin ketone	ND		ug/kg	1.57	0.404	1	A
Dieldrin	ND		ug/kg	0.980	0.490	1	A
4,4'-DDE	ND		ug/kg	1.57	0.363	1	A
4,4'-DDD	ND		ug/kg	1.57	0.559	1	A
4,4'-DDT	ND		ug/kg	2.94	1.26	1	A
Endosulfan I	ND		ug/kg	1.57	0.370	1	A
Endosulfan II	ND		ug/kg	1.57	0.524	1	A
Endosulfan sulfate	ND		ug/kg	0.653	0.311	1	A
Methoxychlor	ND		ug/kg	2.94	0.915	1	A
Toxaphene	ND		ug/kg	29.4	8.23	1	A
cis-Chlordane	ND		ug/kg	1.96	0.546	1	A
trans-Chlordane	ND		ug/kg	1.96	0.518	1	A
Chlordane	ND		ug/kg	12.7	5.20	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-01

Date Collected: 01/02/19 13:40

Client ID: RB09_0-2

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	78		30-150	B
Decachlorobiphenyl	75		30-150	B
2,4,5,6-Tetrachloro-m-xylene	92		30-150	A
Decachlorobiphenyl	77		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-01
 Client ID: RB09_0-2
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/05/19 11:59
 Analyst: DGM
 Percent Solids: 96%
 Methylation Date: 01/04/19 19:15

Extraction Method: EPA 8151A
 Extraction Date: 01/03/19 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	172	10.8	1	A
2,4,5-T	ND		ug/kg	172	5.33	1	A
2,4,5-TP (Silvex)	ND		ug/kg	172	4.58	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	134		30-150	A
DCAA	108		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-02
 Client ID: RB09_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:45
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/04/19 19:21
 Analyst: BM
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 12:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.79	0.351	1	A
Lindane	ND		ug/kg	0.746	0.334	1	A
Alpha-BHC	ND		ug/kg	0.746	0.212	1	A
Beta-BHC	ND		ug/kg	1.79	0.679	1	A
Heptachlor	ND		ug/kg	0.895	0.401	1	A
Aldrin	ND		ug/kg	1.79	0.630	1	A
Heptachlor epoxide	ND		ug/kg	3.36	1.01	1	A
Endrin	ND		ug/kg	0.746	0.306	1	A
Endrin aldehyde	ND		ug/kg	2.24	0.783	1	A
Endrin ketone	ND		ug/kg	1.79	0.461	1	A
Dieldrin	ND		ug/kg	1.12	0.560	1	A
4,4'-DDE	ND		ug/kg	1.79	0.414	1	A
4,4'-DDD	ND		ug/kg	1.79	0.639	1	A
4,4'-DDT	ND		ug/kg	3.36	1.44	1	A
Endosulfan I	ND		ug/kg	1.79	0.423	1	A
Endosulfan II	ND		ug/kg	1.79	0.598	1	A
Endosulfan sulfate	ND		ug/kg	0.746	0.355	1	A
Methoxychlor	ND		ug/kg	3.36	1.04	1	A
Toxaphene	ND		ug/kg	33.6	9.40	1	A
cis-Chlordane	ND		ug/kg	2.24	0.624	1	A
trans-Chlordane	ND		ug/kg	2.24	0.591	1	A
Chlordane	ND		ug/kg	14.5	5.93	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-02

Date Collected: 01/02/19 13:45

Client ID: RB09_19-21

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	55		30-150	B
2,4,5,6-Tetrachloro-m-xylene	204	Q	30-150	A
Decachlorobiphenyl	76		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-02
 Client ID: RB09_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:45
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/05/19 12:18
 Analyst: DGM
 Percent Solids: 85%
 Methylation Date: 01/04/19 19:15

Extraction Method: EPA 8151A
 Extraction Date: 01/03/19 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	193	12.1	1	A
2,4,5-T	ND		ug/kg	193	5.97	1	A
2,4,5-TP (Silvex)	ND		ug/kg	193	5.12	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	187	Q	30-150	A
DCAA	148		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-03
 Client ID: RB09_28-30
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:50
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/04/19 19:34
 Analyst: BM
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 12:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.87	0.367	1	A
Lindane	ND		ug/kg	0.780	0.349	1	A
Alpha-BHC	ND		ug/kg	0.780	0.222	1	A
Beta-BHC	ND		ug/kg	1.87	0.710	1	A
Heptachlor	ND		ug/kg	0.936	0.420	1	A
Aldrin	ND		ug/kg	1.87	0.659	1	A
Heptachlor epoxide	ND		ug/kg	3.51	1.05	1	A
Endrin	ND		ug/kg	0.780	0.320	1	A
Endrin aldehyde	ND		ug/kg	2.34	0.819	1	A
Endrin ketone	ND		ug/kg	1.87	0.482	1	A
Dieldrin	ND		ug/kg	1.17	0.585	1	A
4,4'-DDE	ND		ug/kg	1.87	0.433	1	A
4,4'-DDD	ND		ug/kg	1.87	0.668	1	A
4,4'-DDT	ND		ug/kg	3.51	1.50	1	A
Endosulfan I	ND		ug/kg	1.87	0.442	1	A
Endosulfan II	ND		ug/kg	1.87	0.626	1	A
Endosulfan sulfate	ND		ug/kg	0.780	0.371	1	A
Methoxychlor	ND		ug/kg	3.51	1.09	1	A
Toxaphene	ND		ug/kg	35.1	9.83	1	A
cis-Chlordane	ND		ug/kg	2.34	0.652	1	A
trans-Chlordane	ND		ug/kg	2.34	0.618	1	A
Chlordane	ND		ug/kg	15.2	6.20	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-03

Date Collected: 01/02/19 13:50

Client ID: RB09_28-30

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	100		30-150	B
Decachlorobiphenyl	95		30-150	B
2,4,5,6-Tetrachloro-m-xylene	97		30-150	A
Decachlorobiphenyl	74		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-03
 Client ID: RB09_28-30
 Sample Location: BRONX, NY

Date Collected: 01/02/19 13:50
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/05/19 12:37
 Analyst: DGM
 Percent Solids: 83%
 Methylation Date: 01/04/19 19:15

Extraction Method: EPA 8151A
 Extraction Date: 01/03/19 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	199	12.5	1	A
2,4,5-T	ND		ug/kg	199	6.17	1	A
2,4,5-TP (Silvex)	ND		ug/kg	199	5.29	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	117		30-150	A
DCAA	102		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-04
 Client ID: RB11_0-2
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:30
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/04/19 15:35
 Analyst: SL
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 12:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.63	0.319	1	A
Lindane	ND		ug/kg	0.679	0.303	1	A
Alpha-BHC	ND		ug/kg	0.679	0.193	1	A
Beta-BHC	ND		ug/kg	1.63	0.618	1	A
Heptachlor	ND		ug/kg	0.814	0.365	1	A
Aldrin	ND		ug/kg	1.63	0.574	1	A
Heptachlor epoxide	ND		ug/kg	3.05	0.916	1	A
Endrin	ND		ug/kg	0.679	0.278	1	A
Endrin aldehyde	ND		ug/kg	2.04	0.713	1	A
Endrin ketone	ND		ug/kg	1.63	0.419	1	A
Dieldrin	0.531	JIP	ug/kg	1.02	0.509	1	B
4,4'-DDE	ND		ug/kg	1.63	0.377	1	A
4,4'-DDD	1.42	J	ug/kg	1.63	0.581	1	B
4,4'-DDT	1.56	JIP	ug/kg	3.05	1.31	1	B
Endosulfan I	ND		ug/kg	1.63	0.385	1	A
Endosulfan II	ND		ug/kg	1.63	0.544	1	A
Endosulfan sulfate	ND		ug/kg	0.679	0.323	1	A
Methoxychlor	ND		ug/kg	3.05	0.950	1	A
Toxaphene	ND		ug/kg	30.5	8.55	1	A
cis-Chlordane	ND		ug/kg	2.04	0.567	1	A
trans-Chlordane	0.935	JIP	ug/kg	2.04	0.538	1	A
Chlordane	ND		ug/kg	13.2	5.40	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-04

Date Collected: 01/02/19 10:30

Client ID: RB11_0-2

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	B
Decachlorobiphenyl	63		30-150	B
2,4,5,6-Tetrachloro-m-xylene	98		30-150	A
Decachlorobiphenyl	60		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-04
 Client ID: RB11_0-2
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:30
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/05/19 12:55
 Analyst: DGM
 Percent Solids: 93%
 Methylation Date: 01/04/19 19:15

Extraction Method: EPA 8151A
 Extraction Date: 01/03/19 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	178	11.2	1	A
2,4,5-T	ND		ug/kg	178	5.53	1	A
2,4,5-TP (Silvex)	ND		ug/kg	178	4.75	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	120		30-150	A
DCAA	107		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-05
 Client ID: RB11_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:35
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/05/19 13:14
 Analyst: DGM
 Percent Solids: 85%
 Methylation Date: 01/04/19 19:15

Extraction Method: EPA 8151A
 Extraction Date: 01/03/19 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	193	12.1	1	A
2,4,5-T	ND		ug/kg	193	5.97	1	A
2,4,5-TP (Silvex)	ND		ug/kg	193	5.12	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	125		30-150	A
DCAA	114		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-05 D
 Client ID: RB11_19-21
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:35
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/08/19 17:03
 Analyst: SL
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 12:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	91.9	18.0	50	A
Lindane	ND		ug/kg	38.3	17.1	50	A
Alpha-BHC	ND		ug/kg	38.3	10.9	50	A
Beta-BHC	ND		ug/kg	91.9	34.8	50	A
Heptachlor	ND		ug/kg	46.0	20.6	50	A
Aldrin	ND		ug/kg	91.9	32.4	50	A
Heptachlor epoxide	ND		ug/kg	172	51.7	50	A
Endrin	ND		ug/kg	38.3	15.7	50	A
Endrin aldehyde	ND		ug/kg	115	40.2	50	A
Endrin ketone	ND		ug/kg	91.9	23.7	50	A
Dieldrin	ND		ug/kg	57.4	28.7	50	A
4,4'-DDE	ND		ug/kg	91.9	21.2	50	A
4,4'-DDD	ND		ug/kg	91.9	32.8	50	A
4,4'-DDT	ND		ug/kg	172	73.9	50	A
Endosulfan I	ND		ug/kg	91.9	21.7	50	A
Endosulfan II	ND		ug/kg	91.9	30.7	50	A
Endosulfan sulfate	ND		ug/kg	38.3	18.2	50	A
Methoxychlor	ND		ug/kg	172	53.6	50	A
Toxaphene	ND		ug/kg	1720	482.	50	A
cis-Chlordane	ND		ug/kg	115	32.0	50	A
trans-Chlordane	ND		ug/kg	115	30.3	50	A
Chlordane	ND		ug/kg	747	304.	50	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-05 D

Date Collected: 01/02/19 10:35

Client ID: RB11_19-21

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-06
 Client ID: RB11_28-30
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/04/19 16:00
 Analyst: SL
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 12:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.70	0.334	1	A
Lindane	ND		ug/kg	0.710	0.318	1	A
Alpha-BHC	ND		ug/kg	0.710	0.202	1	A
Beta-BHC	ND		ug/kg	1.70	0.646	1	A
Heptachlor	ND		ug/kg	0.852	0.382	1	A
Aldrin	ND		ug/kg	1.70	0.600	1	A
Heptachlor epoxide	ND		ug/kg	3.20	0.959	1	A
Endrin	ND		ug/kg	0.710	0.291	1	A
Endrin aldehyde	ND		ug/kg	2.13	0.746	1	A
Endrin ketone	ND		ug/kg	1.70	0.439	1	A
Dieldrin	ND		ug/kg	1.06	0.533	1	A
4,4'-DDE	ND		ug/kg	1.70	0.394	1	A
4,4'-DDD	ND		ug/kg	1.70	0.608	1	A
4,4'-DDT	ND		ug/kg	3.20	1.37	1	A
Endosulfan I	ND		ug/kg	1.70	0.403	1	A
Endosulfan II	ND		ug/kg	1.70	0.570	1	A
Endosulfan sulfate	ND		ug/kg	0.710	0.338	1	A
Methoxychlor	ND		ug/kg	3.20	0.994	1	A
Toxaphene	ND		ug/kg	32.0	8.95	1	A
cis-Chlordane	ND		ug/kg	2.13	0.594	1	A
trans-Chlordane	ND	IP	ug/kg	2.13	0.563	1	A
Chlordane	ND		ug/kg	13.8	5.65	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-06

Date Collected: 01/02/19 10:40

Client ID: RB11_28-30

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	106		30-150	B
Decachlorobiphenyl	67		30-150	B
2,4,5,6-Tetrachloro-m-xylene	102		30-150	A
Decachlorobiphenyl	70		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-06
 Client ID: RB11_28-30
 Sample Location: BRONX, NY

Date Collected: 01/02/19 10:40
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/05/19 13:33
 Analyst: DGM
 Percent Solids: 91%
 Methylation Date: 01/04/19 19:15

Extraction Method: EPA 8151A
 Extraction Date: 01/03/19 16:15

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	183	11.5	1	A
2,4,5-T	ND		ug/kg	183	5.67	1	A
2,4,5-TP (Silvex)	ND		ug/kg	183	4.86	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	125		30-150	A
DCAA	112		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-07 D
 Client ID: SODUP03_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/08/19 17:15
 Analyst: SL
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 12:47
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	90.0	17.6	50	A
Lindane	ND		ug/kg	37.5	16.8	50	A
Alpha-BHC	ND		ug/kg	37.5	10.6	50	A
Beta-BHC	ND		ug/kg	90.0	34.1	50	A
Heptachlor	ND		ug/kg	45.0	20.2	50	A
Aldrin	ND		ug/kg	90.0	31.7	50	A
Heptachlor epoxide	ND		ug/kg	169	50.6	50	A
Endrin	ND		ug/kg	37.5	15.4	50	A
Endrin aldehyde	ND		ug/kg	112	39.4	50	A
Endrin ketone	ND		ug/kg	90.0	23.2	50	A
Dieldrin	ND		ug/kg	56.2	28.1	50	A
4,4'-DDE	ND		ug/kg	90.0	20.8	50	A
4,4'-DDD	ND		ug/kg	90.0	32.1	50	A
4,4'-DDT	ND		ug/kg	169	72.3	50	A
Endosulfan I	ND		ug/kg	90.0	21.2	50	A
Endosulfan II	ND		ug/kg	90.0	30.0	50	A
Endosulfan sulfate	ND		ug/kg	37.5	17.8	50	A
Methoxychlor	ND		ug/kg	169	52.5	50	A
Toxaphene	ND		ug/kg	1690	472.	50	A
cis-Chlordane	ND		ug/kg	112	31.3	50	A
trans-Chlordane	ND		ug/kg	112	29.7	50	A
Chlordane	ND		ug/kg	731	298.	50	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-07 D
 Client ID: SODUP03_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	B
Decachlorobiphenyl	0	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	0	Q	30-150	A
Decachlorobiphenyl	0	Q	30-150	A



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-07 D
 Client ID: SODUP03_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/07/19 16:52
 Analyst: DGM
 Percent Solids: 85%
 Methylation Date: 01/04/19 19:15

Extraction Method: EPA 8151A
 Extraction Date: 01/03/19 16:16

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	958	60.4	5	A
2,4,5-T	ND		ug/kg	958	29.7	5	A
2,4,5-TP (Silvex)	ND		ug/kg	958	25.5	5	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	0	Q	30-150	A
DCAA	0	Q	30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/04/19 15:31
Analyst: BM

Extraction Method: EPA 3546
Extraction Date: 01/03/19 12:46
Cleanup Method: EPA 3620B
Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-07 Batch: WG1194454-1						
Delta-BHC	ND		ug/kg	1.52	0.298	A
Lindane	ND		ug/kg	0.634	0.283	A
Alpha-BHC	ND		ug/kg	0.634	0.180	A
Beta-BHC	ND		ug/kg	1.52	0.577	A
Heptachlor	ND		ug/kg	0.761	0.341	A
Aldrin	ND		ug/kg	1.52	0.536	A
Heptachlor epoxide	ND		ug/kg	2.85	0.856	A
Endrin	ND		ug/kg	0.634	0.260	A
Endrin aldehyde	ND		ug/kg	1.90	0.666	A
Endrin ketone	ND		ug/kg	1.52	0.392	A
Dieldrin	ND		ug/kg	0.951	0.476	A
4,4'-DDE	ND		ug/kg	1.52	0.352	A
4,4'-DDD	ND		ug/kg	1.52	0.543	A
4,4'-DDT	ND		ug/kg	2.85	1.22	A
Endosulfan I	ND		ug/kg	1.52	0.360	A
Endosulfan II	ND		ug/kg	1.52	0.508	A
Endosulfan sulfate	ND		ug/kg	0.634	0.302	A
Methoxychlor	ND		ug/kg	2.85	0.888	A
Toxaphene	ND		ug/kg	28.5	7.99	A
cis-Chlordane	ND		ug/kg	1.90	0.530	A
trans-Chlordane	ND		ug/kg	1.90	0.502	A
Chlordane	ND		ug/kg	12.4	5.04	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 01/04/19 15:31
 Analyst: BM

Extraction Method: EPA 3546
 Extraction Date: 01/03/19 12:46
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/04/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-07 Batch: WG1194454-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	105		30-150	B
2,4,5,6-Tetrachloro-m-xylene	82		30-150	A
Decachlorobiphenyl	100		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8151A
 Analytical Date: 01/04/19 11:00
 Analyst: KEG

Extraction Method: EPA 8151A
 Extraction Date: 01/03/19 16:15

Methylation Date: 01/04/19 10:00

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-07 Batch: WG1194518-1						
2,4-D	ND		ug/kg	163	10.2	A
2,4,5-T	ND		ug/kg	163	5.04	A
2,4,5-TP (Silvex)	ND		ug/kg	163	4.33	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	106		30-150	A
DCAA	98		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900156

Report Date: 01/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-07 Batch: WG1194454-2 WG1194454-3									
Delta-BHC	61		95		30-150	44	Q	30	A
Lindane	63		99		30-150	44	Q	30	A
Alpha-BHC	66		109		30-150	49	Q	30	A
Beta-BHC	63		91		30-150	36	Q	30	A
Heptachlor	67		105		30-150	44	Q	30	A
Aldrin	63		97		30-150	43	Q	30	A
Heptachlor epoxide	62		95		30-150	42	Q	30	A
Endrin	68		105		30-150	43	Q	30	A
Endrin aldehyde	47		74		30-150	45	Q	30	A
Endrin ketone	63		96		30-150	42	Q	30	A
Dieldrin	69		110		30-150	46	Q	30	A
4,4'-DDE	64		93		30-150	37	Q	30	A
4,4'-DDD	64		102		30-150	46	Q	30	A
4,4'-DDT	63		101		30-150	46	Q	30	A
Endosulfan I	61		92		30-150	41	Q	30	A
Endosulfan II	60		94		30-150	44	Q	30	A
Endosulfan sulfate	56		81		30-150	36	Q	30	A
Methoxychlor	56		90		30-150	47	Q	30	A
cis-Chlordane	48		67		30-150	33	Q	30	A
trans-Chlordane	38		63		30-150	50	Q	30	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-07 Batch: WG1194454-2 WG1194454-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	61		80		30-150	B
Decachlorobiphenyl	79		97		30-150	B
2,4,5,6-Tetrachloro-m-xylene	58		89		30-150	A
Decachlorobiphenyl	62		94		30-150	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-07 Batch: WG1194518-2 WG1194518-3									
2,4-D	133		117		30-150	13		30	A
2,4,5-T	116		114		30-150	2		30	A
2,4,5-TP (Silvex)	87		90		30-150	3		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	114		116		30-150	A
DCAA	106		107		30-150	B



METALS

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-01

Date Collected: 01/02/19 13:40

Client ID: RB09_0-2

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	3430		mg/kg	8.20	2.21	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Antimony, Total	0.402	J	mg/kg	4.10	0.312	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Arsenic, Total	3.98		mg/kg	0.820	0.171	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Barium, Total	97.9		mg/kg	0.820	0.143	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Beryllium, Total	ND		mg/kg	0.410	0.027	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Cadmium, Total	0.476	J	mg/kg	0.820	0.080	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Calcium, Total	2320		mg/kg	8.20	2.87	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Chromium, Total	9.35		mg/kg	0.820	0.079	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Cobalt, Total	3.88		mg/kg	1.64	0.136	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Copper, Total	68.2		mg/kg	0.820	0.212	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Iron, Total	11000		mg/kg	4.10	0.741	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Lead, Total	569		mg/kg	4.10	0.220	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Magnesium, Total	1370		mg/kg	8.20	1.26	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Manganese, Total	171		mg/kg	0.820	0.130	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Mercury, Total	0.242		mg/kg	0.066	0.014	1	01/03/19 07:30	01/04/19 18:48	EPA 7471B	1,7471B	EA
Nickel, Total	8.91		mg/kg	2.05	0.198	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Potassium, Total	878		mg/kg	205	11.8	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Selenium, Total	0.566	J	mg/kg	1.64	0.212	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Silver, Total	0.279	J	mg/kg	0.820	0.232	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Sodium, Total	657		mg/kg	164	2.58	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.64	0.258	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Vanadium, Total	11.2		mg/kg	0.820	0.166	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
Zinc, Total	206		mg/kg	4.10	0.240	2	01/03/19 05:00	01/07/19 17:03	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	9.4		mg/kg	0.84	0.84	1		01/07/19 17:03	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-02

Date Collected: 01/02/19 13:45

Client ID: RB09_19-21

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4520		mg/kg	9.14	2.47	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	4.57	0.347	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Arsenic, Total	1.76		mg/kg	0.914	0.190	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Barium, Total	27.0		mg/kg	0.914	0.159	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Beryllium, Total	0.110	J	mg/kg	0.457	0.030	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Cadmium, Total	0.201	J	mg/kg	0.914	0.090	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Calcium, Total	1140		mg/kg	9.14	3.20	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Chromium, Total	7.55		mg/kg	0.914	0.088	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Cobalt, Total	3.60		mg/kg	1.83	0.152	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Copper, Total	6.39		mg/kg	0.914	0.236	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Iron, Total	9900		mg/kg	4.57	0.826	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Lead, Total	42.1		mg/kg	4.57	0.245	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Magnesium, Total	2060		mg/kg	9.14	1.41	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Manganese, Total	74.5		mg/kg	0.914	0.145	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Mercury, Total	ND		mg/kg	0.074	0.016	1	01/03/19 07:30	01/04/19 18:49	EPA 7471B	1,7471B	EA
Nickel, Total	7.07		mg/kg	2.29	0.221	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Potassium, Total	409		mg/kg	229	13.2	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Selenium, Total	0.338	J	mg/kg	1.83	0.236	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.914	0.259	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Sodium, Total	48.1	J	mg/kg	183	2.88	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.83	0.288	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Vanadium, Total	10.3		mg/kg	0.914	0.186	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
Zinc, Total	23.5		mg/kg	4.57	0.268	2	01/03/19 05:00	01/07/19 17:08	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	7.6		mg/kg	0.94	0.94	1		01/07/19 17:08	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-03

Date Collected: 01/02/19 13:50

Client ID: RB09_28-30

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	3480		mg/kg	9.45	2.55	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	4.73	0.359	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Arsenic, Total	1.74		mg/kg	0.945	0.197	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Barium, Total	7.66		mg/kg	0.945	0.164	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Beryllium, Total	0.151	J	mg/kg	0.473	0.031	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Cadmium, Total	0.189	J	mg/kg	0.945	0.093	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Calcium, Total	614		mg/kg	9.45	3.31	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Chromium, Total	6.45		mg/kg	0.945	0.091	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Cobalt, Total	3.52		mg/kg	1.89	0.157	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Copper, Total	5.63		mg/kg	0.945	0.244	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Iron, Total	8480		mg/kg	4.73	0.854	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Lead, Total	3.15	J	mg/kg	4.73	0.253	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Magnesium, Total	1460		mg/kg	9.45	1.46	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Manganese, Total	312		mg/kg	0.945	0.150	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Mercury, Total	ND		mg/kg	0.076	0.016	1	01/03/19 07:30	01/04/19 18:55	EPA 7471B	1,7471B	EA
Nickel, Total	7.29		mg/kg	2.36	0.229	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Potassium, Total	378		mg/kg	236	13.6	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Selenium, Total	0.510	J	mg/kg	1.89	0.244	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.945	0.268	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Sodium, Total	103	J	mg/kg	189	2.98	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.89	0.298	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Vanadium, Total	8.43		mg/kg	0.945	0.192	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
Zinc, Total	16.8		mg/kg	4.73	0.277	2	01/03/19 05:00	01/07/19 17:12	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	6.4		mg/kg	0.96	0.97	1		01/07/19 17:12	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-04

Date Collected: 01/02/19 10:30

Client ID: RB11_0-2

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6870		mg/kg	8.46	2.28	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	4.23	0.322	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Arsenic, Total	4.05		mg/kg	0.846	0.176	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Barium, Total	101		mg/kg	0.846	0.147	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Beryllium, Total	ND		mg/kg	0.423	0.028	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Cadmium, Total	0.626	J	mg/kg	0.846	0.083	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Calcium, Total	48400		mg/kg	8.46	2.96	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Chromium, Total	13.9		mg/kg	0.846	0.081	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Cobalt, Total	6.42		mg/kg	1.69	0.140	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Copper, Total	422		mg/kg	0.846	0.218	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Iron, Total	13100		mg/kg	4.23	0.764	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Lead, Total	162		mg/kg	4.23	0.227	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Magnesium, Total	4310		mg/kg	8.46	1.30	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Manganese, Total	173		mg/kg	0.846	0.134	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Mercury, Total	0.235		mg/kg	0.068	0.014	1	01/03/19 07:30	01/04/19 18:57	EPA 7471B	1,7471B	EA
Nickel, Total	16.5		mg/kg	2.12	0.205	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Potassium, Total	2410		mg/kg	212	12.2	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Selenium, Total	0.347	J	mg/kg	1.69	0.218	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.846	0.240	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Sodium, Total	841		mg/kg	169	2.66	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.69	0.266	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Vanadium, Total	21.0		mg/kg	0.846	0.172	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
Zinc, Total	130		mg/kg	4.23	0.248	2	01/03/19 05:00	01/07/19 17:17	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	14		mg/kg	0.86	0.86	1		01/07/19 17:17	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-05

Date Collected: 01/02/19 10:35

Client ID: RB11_19-21

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4590		mg/kg	9.18	2.48	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.59	0.349	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Arsenic, Total	1.06		mg/kg	0.918	0.191	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Barium, Total	19.4		mg/kg	0.918	0.160	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Beryllium, Total	0.128	J	mg/kg	0.459	0.030	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Cadmium, Total	0.184	J	mg/kg	0.918	0.090	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Calcium, Total	706		mg/kg	9.18	3.21	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Chromium, Total	7.45		mg/kg	0.918	0.088	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Cobalt, Total	3.49		mg/kg	1.84	0.152	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Copper, Total	7.19		mg/kg	0.918	0.237	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Iron, Total	9120		mg/kg	4.59	0.829	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Lead, Total	7.56		mg/kg	4.59	0.246	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Magnesium, Total	1870		mg/kg	9.18	1.41	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Manganese, Total	98.0		mg/kg	0.918	0.146	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Mercury, Total	ND		mg/kg	0.074	0.016	1	01/03/19 07:30	01/04/19 18:59	EPA 7471B	1,7471B	EA
Nickel, Total	7.35		mg/kg	2.30	0.222	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Potassium, Total	415		mg/kg	230	13.2	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Selenium, Total	0.340	J	mg/kg	1.84	0.237	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.918	0.260	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Sodium, Total	40.6	J	mg/kg	184	2.89	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.84	0.289	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Vanadium, Total	10.7		mg/kg	0.918	0.186	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
Zinc, Total	17.0		mg/kg	4.59	0.269	2	01/03/19 05:00	01/07/19 17:46	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	7.4		mg/kg	0.94	0.94	1		01/07/19 17:46	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-06

Date Collected: 01/02/19 10:40

Client ID: RB11_28-30

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5060		mg/kg	8.48	2.29	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.24	0.322	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Arsenic, Total	1.78		mg/kg	0.848	0.176	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Barium, Total	46.6		mg/kg	0.848	0.148	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Beryllium, Total	ND		mg/kg	0.424	0.028	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Cadmium, Total	0.237	J	mg/kg	0.848	0.083	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Calcium, Total	1760		mg/kg	8.48	2.97	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Chromium, Total	12.0		mg/kg	0.848	0.081	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Cobalt, Total	6.00		mg/kg	1.70	0.141	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Copper, Total	18.7		mg/kg	0.848	0.219	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Iron, Total	10500		mg/kg	4.24	0.766	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Lead, Total	4.34		mg/kg	4.24	0.227	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Magnesium, Total	2970		mg/kg	8.48	1.31	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Manganese, Total	147		mg/kg	0.848	0.135	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Mercury, Total	ND		mg/kg	0.069	0.015	1	01/03/19 07:30	01/04/19 19:01	EPA 7471B	1,7471B	EA
Nickel, Total	11.7		mg/kg	2.12	0.205	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Potassium, Total	1530		mg/kg	212	12.2	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Selenium, Total	ND		mg/kg	1.70	0.219	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.848	0.240	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Sodium, Total	229		mg/kg	170	2.67	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.70	0.267	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Vanadium, Total	18.1		mg/kg	0.848	0.172	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
Zinc, Total	25.0		mg/kg	4.24	0.248	2	01/03/19 05:00	01/07/19 17:50	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	12		mg/kg	0.88	0.88	1		01/07/19 17:50	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-07
 Client ID: SODUP03_010219
 Sample Location: BRONX, NY

Date Collected: 01/02/19 00:00
 Date Received: 01/02/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4170		mg/kg	9.29	2.51	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.64	0.353	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Arsenic, Total	1.99		mg/kg	0.929	0.193	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Barium, Total	12.4		mg/kg	0.929	0.162	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Beryllium, Total	0.093	J	mg/kg	0.464	0.031	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Cadmium, Total	0.158	J	mg/kg	0.929	0.091	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Calcium, Total	724		mg/kg	9.29	3.25	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Chromium, Total	9.01		mg/kg	0.929	0.089	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Cobalt, Total	2.96		mg/kg	1.86	0.154	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Copper, Total	6.48		mg/kg	0.929	0.240	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Iron, Total	7500		mg/kg	4.64	0.839	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Lead, Total	12.0		mg/kg	4.64	0.249	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Magnesium, Total	1770		mg/kg	9.29	1.43	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Manganese, Total	78.9		mg/kg	0.929	0.148	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Mercury, Total	ND		mg/kg	0.074	0.016	1	01/03/19 07:30	01/04/19 19:03	EPA 7471B	1,7471B	EA
Nickel, Total	6.83		mg/kg	2.32	0.225	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Potassium, Total	532		mg/kg	232	13.4	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Selenium, Total	0.316	J	mg/kg	1.86	0.240	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.929	0.263	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Sodium, Total	85.4	J	mg/kg	186	2.93	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.86	0.293	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Vanadium, Total	11.8		mg/kg	0.929	0.188	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
Zinc, Total	17.9		mg/kg	4.64	0.272	2	01/03/19 05:00	01/07/19 17:55	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	9.0		mg/kg	0.94	0.94	1		01/07/19 17:55	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-07 Batch: WG1194294-1										
Mercury, Total	ND		mg/kg	0.083	0.018	1	01/03/19 07:30	01/04/19 18:09	1,7471B	EA

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-07 Batch: WG1194304-1										
Aluminum, Total	1.40	J	mg/kg	4.00	1.08	1	01/03/19 05:00	01/07/19 14:53	1,6010D	LC
Antimony, Total	ND		mg/kg	2.00	0.152	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Arsenic, Total	ND		mg/kg	0.400	0.083	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Barium, Total	ND		mg/kg	0.400	0.070	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Beryllium, Total	ND		mg/kg	0.200	0.013	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.400	0.039	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Calcium, Total	ND		mg/kg	4.00	1.40	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Chromium, Total	ND		mg/kg	0.400	0.038	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Cobalt, Total	ND		mg/kg	0.800	0.066	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Copper, Total	ND		mg/kg	0.400	0.103	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Iron, Total	1.63	J	mg/kg	2.00	0.361	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Lead, Total	ND		mg/kg	2.00	0.107	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Magnesium, Total	1.31	J	mg/kg	4.00	0.616	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Manganese, Total	0.152	J	mg/kg	0.400	0.064	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Nickel, Total	ND		mg/kg	1.00	0.097	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Potassium, Total	ND		mg/kg	100	5.76	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Selenium, Total	0.128	J	mg/kg	0.800	0.103	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Silver, Total	ND		mg/kg	0.400	0.113	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Sodium, Total	ND		mg/kg	80.0	1.26	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Thallium, Total	ND		mg/kg	0.800	0.126	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Vanadium, Total	ND		mg/kg	0.400	0.081	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC
Zinc, Total	ND		mg/kg	2.00	0.117	1	01/03/19 05:00	01/07/19 13:07	1,6010D	LC



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 Batch: WG1194294-2 SRM Lot Number: D102-540								
Mercury, Total	121		-		65-134	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900156

Report Date: 01/09/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 Batch: WG1194304-2 SRM Lot Number: D102-540					
Aluminum, Total	65	-	49-150	-	
Antimony, Total	111	-	1-199	-	
Arsenic, Total	101	-	83-117	-	
Barium, Total	96	-	83-118	-	
Beryllium, Total	93	-	83-116	-	
Cadmium, Total	104	-	83-118	-	
Calcium, Total	86	-	82-118	-	
Chromium, Total	91	-	83-117	-	
Cobalt, Total	96	-	84-116	-	
Copper, Total	91	-	84-116	-	
Iron, Total	80	-	61-139	-	
Lead, Total	97	-	82-118	-	
Magnesium, Total	80	-	76-124	-	
Manganese, Total	92	-	82-118	-	
Nickel, Total	97	-	83-117	-	
Potassium, Total	76	-	70-130	-	
Selenium, Total	98	-	79-121	-	
Silver, Total	97	-	80-120	-	
Sodium, Total	99	-	74-126	-	
Thallium, Total	99	-	81-119	-	
Vanadium, Total	91	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 Batch: WG1194304-2 SRM Lot Number: D102-540					
Zinc, Total	93	-	81-118	-	

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

<u>Parameter</u>	<u>Native Sample</u>	<u>MS Added</u>	<u>MS Found</u>	<u>MS %Recovery</u>	<u>Qual</u>	<u>MSD Found</u>	<u>MSD %Recovery</u>	<u>Qual</u>	<u>Recovery Limits</u>	<u>RPD</u>	<u>Qual</u>	<u>RPD Limits</u>
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1194294-3 QC Sample: L1852427-05 Client ID: MS Sample												
Mercury, Total	0.132	0.144	0.351	152	Q	-	-		80-120	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1194304-3 QC Sample: L1852427-05 Client ID: MS Sample									
Aluminum, Total	19600	180	21700	1160	Q	-	75-125	-	20
Antimony, Total	ND	45.1	23.4	52	Q	-	75-125	-	20
Arsenic, Total	5.34	10.8	16.9	107		-	75-125	-	20
Barium, Total	186	180	410	124		-	75-125	-	20
Beryllium, Total	ND	4.51	3.10	69	Q	-	75-125	-	20
Cadmium, Total	0.746J	4.6	4.74	103		-	75-125	-	20
Calcium, Total	45000	902	48300	366	Q	-	75-125	-	20
Chromium, Total	31.9	18	53.5	120		-	75-125	-	20
Cobalt, Total	7.64	45.1	43.3	79		-	75-125	-	20
Copper, Total	23.1	22.5	36.0	57	Q	-	75-125	-	20
Iron, Total	13900	90.2	14500	665	Q	-	75-125	-	20
Lead, Total	67.2	46	130	136	Q	-	75-125	-	20
Magnesium, Total	39200	902	39200	0	Q	-	75-125	-	20
Manganese, Total	306	45.1	379	162	Q	-	75-125	-	20
Nickel, Total	12.7	45.1	49.7	82		-	75-125	-	20
Potassium, Total	1240	902	2080	93		-	75-125	-	20
Selenium, Total	0.404J	10.8	10.4	96		-	75-125	-	20
Silver, Total	ND	27	26.6	98		-	75-125	-	20
Sodium, Total	906	902	1840	104		-	75-125	-	20
Thallium, Total	ND	10.8	6.65	61	Q	-	75-125	-	20
Vanadium, Total	41.3	45.1	73.8	72	Q	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits	
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1194304-3 QC Sample: L1852427-05 Client ID: MS Sample										
Zinc, Total	127	45.1	209	182	Q	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900156

Report Date: 01/09/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1194294-4 QC Sample: L1852427-05 Client ID: DUP Sample						
Mercury, Total	0.132	0.198	mg/kg	40	Q	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900156

Report Date: 01/09/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1194304-4 QC Sample: L1852427-05 Client ID: DUP Sample					
Antimony, Total	ND	ND	mg/kg	NC	20
Arsenic, Total	5.34	5.28	mg/kg	1	20
Barium, Total	186	188	mg/kg	1	20
Beryllium, Total	ND	ND	mg/kg	NC	20
Cadmium, Total	0.746J	0.701J	mg/kg	NC	20
Calcium, Total	45000	45700	mg/kg	2	20
Chromium, Total	31.9	28.9	mg/kg	10	20
Cobalt, Total	7.64	7.26	mg/kg	5	20
Copper, Total	23.1	15.5	mg/kg	39	Q 20
Iron, Total	13900	12900	mg/kg	7	20
Lead, Total	67.2	65.8	mg/kg	2	20
Magnesium, Total	39200	35600	mg/kg	10	20
Manganese, Total	306	341	mg/kg	11	20
Nickel, Total	12.7	11.0	mg/kg	14	20
Potassium, Total	1240	1090	mg/kg	13	20
Selenium, Total	0.404J	1.20J	mg/kg	NC	20
Silver, Total	ND	ND	mg/kg	NC	20
Sodium, Total	906	936	mg/kg	3	20
Thallium, Total	ND	ND	mg/kg	NC	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900156

Report Date: 01/09/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1194304-4 QC Sample: L1852427-05 Client ID: DUP Sample					
Vanadium, Total	41.3	31.8	mg/kg	26	Q 20
Zinc, Total	127	131	mg/kg	3	20
Total Metals - Mansfield Lab Associated sample(s): 01-07 QC Batch ID: WG1194304-4 QC Sample: L1852427-05 Client ID: DUP Sample					
Aluminum, Total	19600	20600	mg/kg	5	20

INORGANICS & MISCELLANEOUS

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-01

Date Collected: 01/02/19 13:40

Client ID: RB09_0-2

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.7		%	0.100	NA	1	-	01/04/19 13:06	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	01/03/19 12:15	01/03/19 15:14	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.836	0.167	1	01/03/19 07:20	01/03/19 13:44	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-02

Date Collected: 01/02/19 13:45

Client ID: RB09_19-21

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.1		%	0.100	NA	1	-	01/04/19 13:06	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	01/03/19 12:15	01/03/19 15:20	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.940	0.188	1	01/03/19 07:20	01/03/19 13:44	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-03

Date Collected: 01/02/19 13:50

Client ID: RB09_28-30

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.9		%	0.100	NA	1	-	01/04/19 13:06	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.25	1	01/03/19 12:15	01/03/19 15:21	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.965	0.193	1	01/03/19 07:20	01/03/19 13:44	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900156**Project Number:** 170487001**Report Date:** 01/09/19**SAMPLE RESULTS**

Lab ID: L1900156-04

Date Collected: 01/02/19 10:30

Client ID: RB11_0-2

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.6		%	0.100	NA	1	-	01/04/19 13:06	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.23	1	01/03/19 12:15	01/03/19 15:22	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.864	0.173	1	01/03/19 07:20	01/03/19 13:44	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-05

Date Collected: 01/02/19 10:35

Client ID: RB11_19-21

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.9		%	0.100	NA	1	-	01/04/19 13:06	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	01/03/19 12:15	01/03/19 15:23	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.942	0.188	1	01/03/19 07:20	01/03/19 13:44	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-06

Date Collected: 01/02/19 10:40

Client ID: RB11_28-30

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.7		%	0.100	NA	1	-	01/04/19 13:19	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.23	1	01/03/19 12:15	01/03/19 15:24	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.882	0.176	1	01/03/19 07:20	01/03/19 13:44	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

SAMPLE RESULTS

Lab ID: L1900156-07

Date Collected: 01/02/19 00:00

Client ID: SODUP03_010219

Date Received: 01/02/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.7		%	0.100	NA	1	-	01/04/19 13:19	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.23	1	01/03/19 12:15	01/03/19 15:25	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.944	0.189	1	01/03/19 07:20	01/03/19 13:44	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-07 Batch: WG1194320-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	01/03/19 07:20	01/03/19 13:44	1,7196A	NH
General Chemistry - Westborough Lab for sample(s): 01-07 Batch: WG1194383-1										
Cyanide, Total	ND		mg/kg	0.93	0.20	1	01/03/19 12:15	01/03/19 14:56	1,9010C/9012B	LH

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 01-07 Batch: WG1194320-2								
Chromium, Hexavalent	97		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-07 Batch: WG1194383-2 WG1194383-3								
Cyanide, Total	68	Q	72	Q	80-120	11		35



Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
Report Date: 01/09/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG1194320-4 QC Sample: L1900156-04 Client ID: RB11_0-2												
Chromium, Hexavalent	ND	1460	1300	89		-	-		75-125	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG1194383-4 WG1194383-5 QC Sample: L1900156-01 Client ID: RB09_0-2												
Cyanide, Total	ND	10	9.6	95		8.4	81		75-125	13		35

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900156

Report Date: 01/09/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-07 QC Batch ID: WG1194320-6 QC Sample: L1900156-04 Client ID: RB11_0-2						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-05 QC Batch ID: WG1194804-1 QC Sample: L1852427-05 Client ID: DUP Sample						
Solids, Total	87.3	87.0	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 06-07 QC Batch ID: WG1194806-1 QC Sample: L1900160-01 Client ID: DUP Sample						
Solids, Total	85.7	87.1	%	2		20

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Serial_No:01091916:22
Lab Number: L1900156
Report Date: 01/09/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler **Custody Seal**
A Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900156-01A	Vial MeOH preserved	A	NA		3.2	Y	Absent		NYTCL-8260HLW(14)
L1900156-01B	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-01C	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-01D	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900156-01E	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-01F	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1900156-01G	Glass 500ml/16oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-02A	Vial MeOH preserved	A	NA		3.2	Y	Absent		NYTCL-8260HLW(14)
L1900156-02B	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-02C	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-02D	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900156-02E	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-02F	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1900156-02G	Glass 500ml/16oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-03A	Vial MeOH preserved	A	NA		3.2	Y	Absent		NYTCL-8260HLW(14)

*Values in parentheses indicate holding time in days



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900156

Project Number: 170487001

Report Date: 01/09/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900156-03B	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-03C	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-03D	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900156-03E	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-03F	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1900156-03G	Glass 500ml/16oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-04A	Vial MeOH preserved	A	NA		3.2	Y	Absent		NYTCL-8260HLW(14)
L1900156-04B	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-04C	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-04D	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900156-04E	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-04F	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1900156-04G	Glass 500ml/16oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-05A	Vial MeOH preserved	A	NA		3.2	Y	Absent		NYTCL-8260HLW(14)
L1900156-05B	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-05C	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-05D	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Serial_No:01091916:22
Lab Number: L1900156
Report Date: 01/09/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900156-05E	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-05F	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1900156-05G	Glass 500ml/16oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-06A	Vial MeOH preserved	A	NA		3.2	Y	Absent		NYTCL-8260HLW(14)
L1900156-06B	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-06C	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-06D	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900156-06E	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-06F	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1900156-06G	Glass 500ml/16oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-07A	Vial MeOH preserved	A	NA		3.2	Y	Absent		NYTCL-8260HLW(14)
L1900156-07B	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-07C	Vial water preserved	A	NA		3.2	Y	Absent	03-JAN-19 00:41	NYTCL-8260HLW(14)
L1900156-07D	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900156-07E	Glass 120ml/4oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-07F	Plastic 2oz unpreserved for TS	A	NA		3.2	Y	Absent		TS(7)
L1900156-07G	Glass 500ml/16oz unpreserved	A	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900156-08A	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Serial_No:01091916:22

Lab Number: L1900156

Report Date: 01/09/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900156-08B	Vial HCl preserved	A	NA		3.2	Y	Absent		NYTCL-8260(14)

Project Name: GERARD AVE. + E. 146TH ST.
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GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900156
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Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Project Name: GERARD AVE. + E. 146TH ST.
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Report Date: 01/09/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

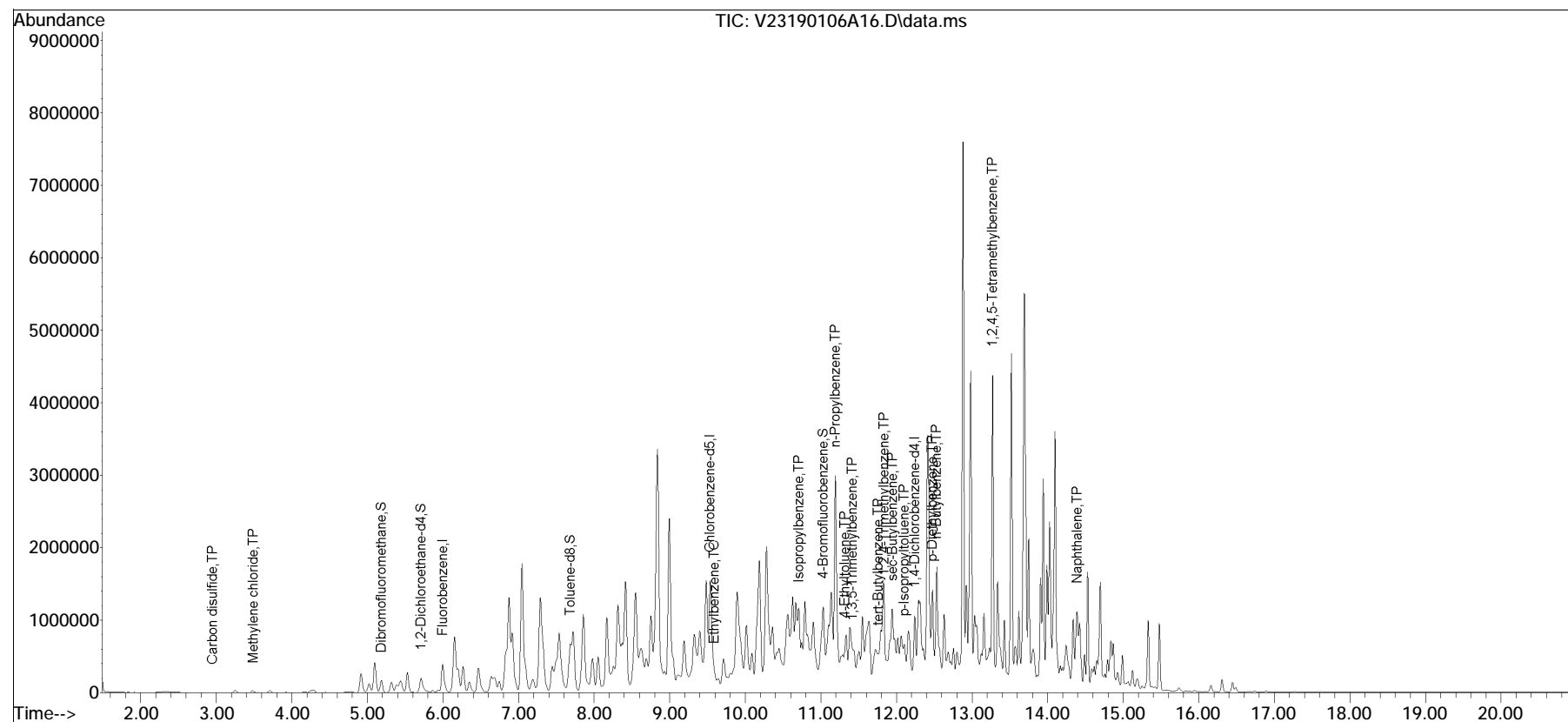
 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 1	Date Rec'd in Lab 1/3/19	ALPHA Job # L1900156																																																																																																																																
	Project Information Project Name: Gerard Ave + E. 146th St. Project Location: Bronx, NY Project # 170487001 (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #																																																																																																																															
Client Information Client: Langan Engineering Address: 21 Penn Plaza, 360 W. 31st St 8th Fl., NY, NY 10001-2727 Phone: (212) 479-5400 Fax: (212) 479-5444 Email: jleung@langan.com		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:																																																																																																																																
Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		ANALYSIS <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Part 375/TCL VOCs</th> <th>Part 375/TCL SVOCs</th> <th>Part 375/TCL PCBs</th> <th>Pesticides</th> <th>Herbicides</th> <th>TAL Metals</th> <th>Hex Chromium</th> <th>Total Cyanide</th> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> </table>			Part 375/TCL VOCs	Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hex Chromium	Total Cyanide	X	X	X	X	X	X	X	X																																																																																																																
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X	X	X	X	X	X	X	X																																																																																																																													
Other project specific requirements/comments: Please also cc: datamanagement@langan.com and vzuluaga@langan.com Please specify Metals or TAL.		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Lab to do (Please Specify below)																																																																																																																																		
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Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)																																																																																																																												
Relinquished By: [Signature] Date/Time: 1/2/19 3:15 PM		Received By: [Signature] Date/Time: 1/2/19 1515		Relinquished By: [Signature] Date/Time: 1/2/19 1730		Received By: [Signature] Date/Time: 1/2/19 1900		Relinquished By: [Signature] Date/Time: 1/2/19 2250		Received By: [Signature] Date/Time: 1/2/19 2250																																																																																																																										

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA123\2019\190106A\
Data File : V23190106A16.D
Acq On : 06 Jan 2019 15:45
Operator : VOA123:JC
Sample : 11900156-05D,31H,5.72,5,0.050,,a
Misc : WG1195272,ICAL15371
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 06 18:36:18 2019
Quant Method : I:\VOLATILES\VOA123\2019\190106A\V123_190103D_8260.m
Quant Title : VOLATILES BY GC/MS
QLast Update : Fri Jan 04 09:22:26 2019
Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90106A\V23190106A02.D•

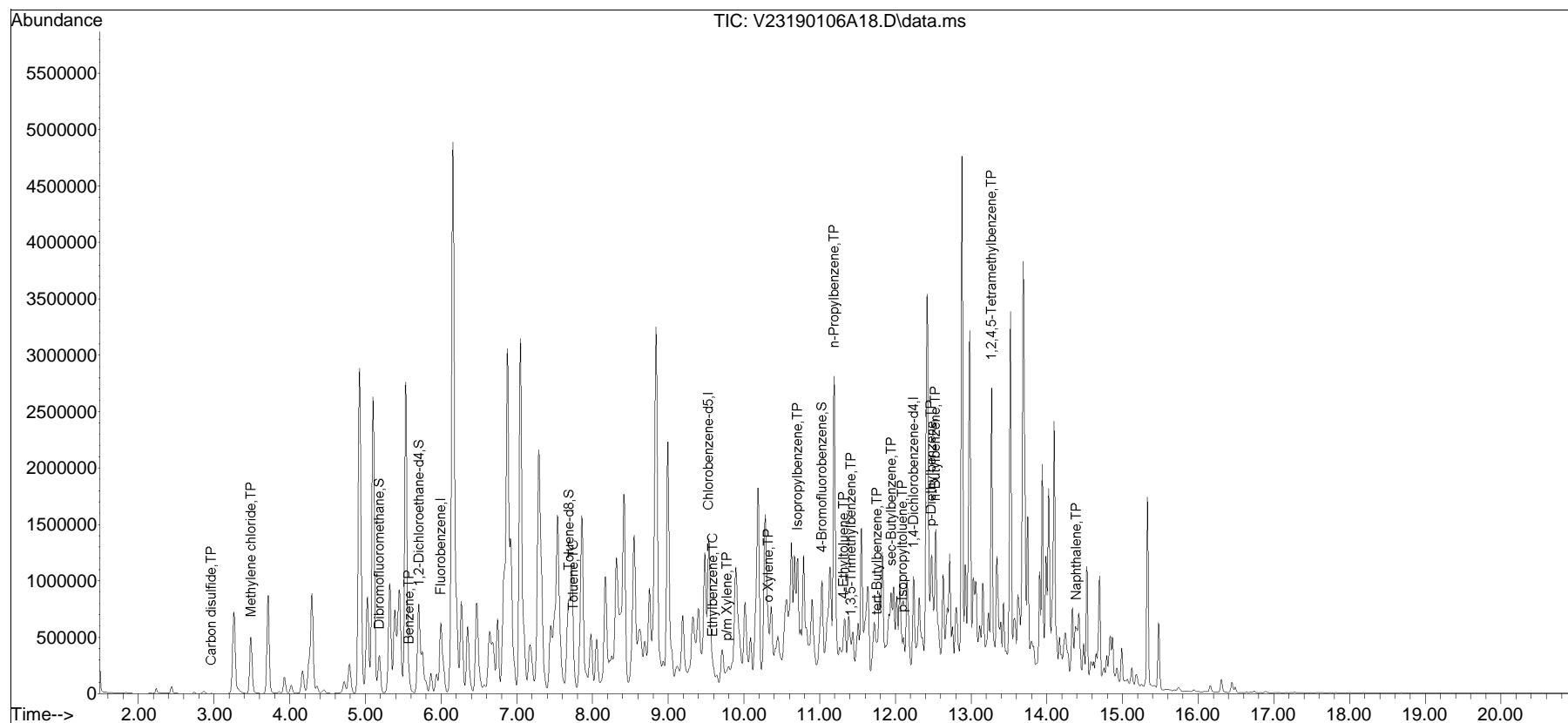


Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA123\2019\190106A\
 Data File : V23190106A18.D
 Acq On : 06 Jan 2019 16:36
 Operator : VOA123:JC
 Sample : 11900156-07D,31H,6.11,5,0.010,,a
 Misc : WG1195272,ICAL15371
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 06 18:42:06 2019
 Quant Method : I:\VOLATILES\VOA123\2019\190106A\V123_190103D_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Fri Jan 04 09:22:26 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90106A\V23190106A02.D•





ANALYTICAL REPORT

Lab Number:	L1900324
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	GERARD AVE. + E. 146TH ST.
Project Number:	170487001
Report Date:	01/10/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1900324-01	RB21_0-2	SOIL	BRONX, NY	01/03/19 11:30	01/03/19
L1900324-02	RB21_2-4	SOIL	BRONX, NY	01/03/19 11:35	01/03/19
L1900324-03	RB21_18-20	SOIL	BRONX, NY	01/03/19 11:40	01/03/19
L1900324-04	RB22_0-2	SOIL	BRONX, NY	01/03/19 13:00	01/03/19
L1900324-05	RB22_3-5	SOIL	BRONX, NY	01/03/19 13:05	01/03/19
L1900324-06	RB19_0-2	SOIL	BRONX, NY	01/03/19 14:00	01/03/19
L1900324-07	RB19_20-22	SOIL	BRONX, NY	01/03/19 14:05	01/03/19
L1900324-08	RB19_24-25	SOIL	BRONX, NY	01/03/19 14:10	01/03/19
L1900324-09	SOTB05_010319	WATER	BRONX, NY	01/03/19 00:00	01/03/19

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The analyses performed were specified by the client.

Semivolatile Organics

L1900324-07: The sample has elevated detection limits due to the limited sample volume utilized during extraction, as required by the sample matrix.

The WG1194798-4/-5 MS/MSD recoveries, performed on L1900324-02, is below the acceptance criteria for benzoic acid (0%/0%) due to the concentration of this compound falling below the reported detection limit.

PCBs

L1900324-07: The sample has elevated detection limits due to the limited sample volume utilized during extraction, as required by the sample matrix.

Total Metals

L1900324-01 through -08: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1194873-3 MS recoveries, performed on L1900324-02, are outside the acceptance criteria for antimony (MS at 74%), arsenic (MS at 41%), chromium (MSD at 74%), potassium (MS at 138%), and thallium (70%/69%). A post digestion spike was performed and was within acceptance criteria.

The WG1194873-3/-4 MS/MSD recoveries for aluminum (0%/0%), calcium (2580%/2410%), copper (MS at 63%), lead (MSD at 22%), magnesium (304%/64%), manganese (MS at 200%), and zinc (MSD at 60%), performed on L1900324-02, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1194873-3/-4 MS/MSD recoveries for iron (16300%/0%), performed on L1900324-02, does not apply

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Case Narrative (continued)

because the sample concentration is greater than four times the spike amount added.

The WG1194873-4 MS/MSD RPDs for arsenic (34%), iron (55%), and magnesium (31%), performed on L1900324-02, are above the acceptance criteria.

The WG1195001-4 MSD recovery, performed on L1900324-02, is outside the acceptance criteria for mercury (127%). A post digestion spike was performed and was within acceptance criteria.

Cyanide, Total

The WG1194787-2/-3 LCS/LCSD recoveries (48%/46%), associated with L1900324-01 through -08, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 01/10/19

ORGANICS

VOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-01
 Client ID: RB21_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:30
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/07/19 15:47
 Analyst: AD
 Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.4	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.29	1
Tetrachloroethene	0.21	J	ug/kg	0.54	0.21	1
Chlorobenzene	ND		ug/kg	0.54	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.4	0.76	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.54	0.18	1
Bromodichloromethane	ND		ug/kg	0.54	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.30	1
cis-1,3-Dichloropropene	ND		ug/kg	0.54	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.54	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.54	0.17	1
Bromoform	ND		ug/kg	4.4	0.27	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.54	0.18	1
Benzene	ND		ug/kg	0.54	0.18	1
Toluene	ND		ug/kg	1.1	0.59	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.4	1.0	1
Bromomethane	ND		ug/kg	2.2	0.63	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.2	0.49	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-01

Date Collected: 01/03/19 11:30

Client ID: RB21_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.54	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.2	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.2	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.2	0.22	1
p/m-Xylene	ND		ug/kg	2.2	0.61	1
o-Xylene	ND		ug/kg	1.1	0.32	1
Xylenes, Total	ND		ug/kg	1.1	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.2	0.26	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	11		ug/kg	11	5.2	1
Carbon disulfide	ND		ug/kg	11	4.9	1
2-Butanone	ND		ug/kg	11	2.4	1
Vinyl acetate	ND		ug/kg	11	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.2	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.2	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.2	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
1,3-Dichloropropane	ND		ug/kg	2.2	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.54	0.14	1
Bromobenzene	ND		ug/kg	2.2	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.2	0.13	1
o-Chlorotoluene	ND		ug/kg	2.2	0.21	1
p-Chlorotoluene	ND		ug/kg	2.2	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.3	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.4	0.18	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.4	0.71	1
Acrylonitrile	ND		ug/kg	4.4	1.2	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-01
Client ID: RB21_0-2
Sample Location: BRONX, NY

Date Collected: 01/03/19 11:30
Date Received: 01/03/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.2	0.35	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.2	0.30	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.2	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.2	0.36	1
1,4-Dioxane	ND		ug/kg	110	38.	1
p-Diethylbenzene	ND		ug/kg	2.2	0.19	1
p-Ethyltoluene	ND		ug/kg	2.2	0.42	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.2	0.21	1
Ethyl ether	ND		ug/kg	2.2	0.37	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.4	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	106		70-130
Toluene-d8	115		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	99		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-02
 Client ID: RB21_2-4
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:35
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/07/19 16:13
 Analyst: AD
 Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.7	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.1	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	ND		ug/kg	0.57	0.22	1
Chlorobenzene	ND		ug/kg	0.57	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.5	0.79	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.29	1
1,1,1-Trichloroethane	ND		ug/kg	0.57	0.19	1
Bromodichloromethane	ND		ug/kg	0.57	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.31	1
cis-1,3-Dichloropropene	ND		ug/kg	0.57	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.57	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.57	0.18	1
Bromoform	ND		ug/kg	4.5	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.57	0.19	1
Benzene	ND		ug/kg	0.57	0.19	1
Toluene	ND		ug/kg	1.1	0.62	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.5	1.0	1
Bromomethane	ND		ug/kg	2.3	0.66	1
Vinyl chloride	ND		ug/kg	1.1	0.38	1
Chloroethane	ND		ug/kg	2.3	0.51	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-02

Date Collected: 01/03/19 11:35

Client ID: RB21_2-4

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.57	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.19	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.64	1
o-Xylene	ND		ug/kg	1.1	0.33	1
Xylenes, Total	ND		ug/kg	1.1	0.33	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	2.3	0.27	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	ND		ug/kg	11	5.5	1
Carbon disulfide	ND		ug/kg	11	5.2	1
2-Butanone	ND		ug/kg	11	2.5	1
Vinyl acetate	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.3	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.3	0.23	1
2,2-Dichloropropane	ND		ug/kg	2.3	0.23	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.32	1
1,3-Dichloropropane	ND		ug/kg	2.3	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.57	0.15	1
Bromobenzene	ND		ug/kg	2.3	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.19	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.3	0.13	1
o-Chlorotoluene	ND		ug/kg	2.3	0.22	1
p-Chlorotoluene	ND		ug/kg	2.3	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.4	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.5	0.19	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.5	0.74	1
Acrylonitrile	ND		ug/kg	4.5	1.3	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-02
Client ID: RB21_2-4
Sample Location: BRONX, NY

Date Collected: 01/03/19 11:35
Date Received: 01/03/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.36	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.31	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.38	1
1,4-Dioxane	ND		ug/kg	110	40.	1
p-Diethylbenzene	ND		ug/kg	2.3	0.20	1
p-Ethyltoluene	ND		ug/kg	2.3	0.44	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.3	0.22	1
Ethyl ether	ND		ug/kg	2.3	0.39	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.7	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	104		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-03
 Client ID: RB21_18-20
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:40
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/07/19 16:39
 Analyst: AD
 Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	3.9	1.8	1
1,1-Dichloroethane	ND		ug/kg	0.77	0.11	1
Chloroform	ND		ug/kg	1.2	0.11	1
Carbon tetrachloride	ND		ug/kg	0.77	0.18	1
1,2-Dichloropropane	ND		ug/kg	0.77	0.10	1
Dibromochloromethane	ND		ug/kg	0.77	0.11	1
1,1,2-Trichloroethane	ND		ug/kg	0.77	0.21	1
Tetrachloroethene	ND		ug/kg	0.39	0.15	1
Chlorobenzene	ND		ug/kg	0.39	0.10	1
Trichlorofluoromethane	ND		ug/kg	3.1	0.54	1
1,2-Dichloroethane	ND		ug/kg	0.77	0.20	1
1,1,1-Trichloroethane	ND		ug/kg	0.39	0.13	1
Bromodichloromethane	ND		ug/kg	0.39	0.08	1
trans-1,3-Dichloropropene	ND		ug/kg	0.77	0.21	1
cis-1,3-Dichloropropene	ND		ug/kg	0.39	0.12	1
1,3-Dichloropropene, Total	ND		ug/kg	0.39	0.12	1
1,1-Dichloropropene	ND		ug/kg	0.39	0.12	1
Bromoform	ND		ug/kg	3.1	0.19	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.39	0.13	1
Benzene	ND		ug/kg	0.39	0.13	1
Toluene	ND		ug/kg	0.77	0.42	1
Ethylbenzene	ND		ug/kg	0.77	0.11	1
Chloromethane	ND		ug/kg	3.1	0.72	1
Bromomethane	ND		ug/kg	1.5	0.45	1
Vinyl chloride	ND		ug/kg	0.77	0.26	1
Chloroethane	ND		ug/kg	1.5	0.35	1
1,1-Dichloroethene	ND		ug/kg	0.77	0.18	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	0.10	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-03

Date Collected: 01/03/19 11:40

Client ID: RB21_18-20

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.39	0.10	1
1,2-Dichlorobenzene	ND		ug/kg	1.5	0.11	1
1,3-Dichlorobenzene	ND		ug/kg	1.5	0.11	1
1,4-Dichlorobenzene	ND		ug/kg	1.5	0.13	1
Methyl tert butyl ether	ND		ug/kg	1.5	0.16	1
p/m-Xylene	ND		ug/kg	1.5	0.43	1
o-Xylene	ND		ug/kg	0.77	0.22	1
Xylenes, Total	ND		ug/kg	0.77	0.22	1
cis-1,2-Dichloroethene	ND		ug/kg	0.77	0.14	1
1,2-Dichloroethene, Total	ND		ug/kg	0.77	0.10	1
Dibromomethane	ND		ug/kg	1.5	0.18	1
Styrene	ND		ug/kg	0.77	0.15	1
Dichlorodifluoromethane	ND		ug/kg	7.7	0.71	1
Acetone	7.0	J	ug/kg	7.7	3.7	1
Carbon disulfide	ND		ug/kg	7.7	3.5	1
2-Butanone	ND		ug/kg	7.7	1.7	1
Vinyl acetate	ND		ug/kg	7.7	1.7	1
4-Methyl-2-pentanone	ND		ug/kg	7.7	0.99	1
1,2,3-Trichloropropane	ND		ug/kg	1.5	0.10	1
2-Hexanone	ND		ug/kg	7.7	0.91	1
Bromochloromethane	ND		ug/kg	1.5	0.16	1
2,2-Dichloropropane	ND		ug/kg	1.5	0.16	1
1,2-Dibromoethane	ND		ug/kg	0.77	0.22	1
1,3-Dichloropropane	ND		ug/kg	1.5	0.13	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.39	0.10	1
Bromobenzene	ND		ug/kg	1.5	0.11	1
n-Butylbenzene	ND		ug/kg	0.77	0.13	1
sec-Butylbenzene	ND		ug/kg	0.77	0.11	1
tert-Butylbenzene	ND		ug/kg	1.5	0.09	1
o-Chlorotoluene	ND		ug/kg	1.5	0.15	1
p-Chlorotoluene	ND		ug/kg	1.5	0.08	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.3	0.77	1
Hexachlorobutadiene	ND		ug/kg	3.1	0.13	1
Isopropylbenzene	ND		ug/kg	0.77	0.08	1
p-Isopropyltoluene	ND		ug/kg	0.77	0.08	1
Naphthalene	ND		ug/kg	3.1	0.50	1
Acrylonitrile	ND		ug/kg	3.1	0.89	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-03
Client ID: RB21_18-20
Sample Location: BRONX, NY

Date Collected: 01/03/19 11:40
Date Received: 01/03/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.77	0.13	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.5	0.25	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.5	0.21	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.5	0.15	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.5	0.26	1
1,4-Dioxane	ND		ug/kg	77	27.	1
p-Diethylbenzene	ND		ug/kg	1.5	0.14	1
p-Ethyltoluene	ND		ug/kg	1.5	0.30	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.5	0.15	1
Ethyl ether	ND		ug/kg	1.5	0.26	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	3.9	1.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	101		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-04
 Client ID: RB22_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 13:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/07/19 17:04
 Analyst: AD
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.4	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.1	0.25	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.13	1
Dibromochloromethane	ND		ug/kg	1.1	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.29	1
Tetrachloroethene	ND		ug/kg	0.54	0.21	1
Chlorobenzene	ND		ug/kg	0.54	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.3	0.75	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.28	1
1,1,1-Trichloroethane	ND		ug/kg	0.54	0.18	1
Bromodichloromethane	ND		ug/kg	0.54	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.54	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.54	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.54	0.17	1
Bromoform	ND		ug/kg	4.3	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.54	0.18	1
Benzene	ND		ug/kg	0.54	0.18	1
Toluene	ND		ug/kg	1.1	0.58	1
Ethylbenzene	ND		ug/kg	1.1	0.15	1
Chloromethane	ND		ug/kg	4.3	1.0	1
Bromomethane	ND		ug/kg	2.1	0.62	1
Vinyl chloride	ND		ug/kg	1.1	0.36	1
Chloroethane	ND		ug/kg	2.1	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.15	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-04

Date Collected: 01/03/19 13:00

Client ID: RB22_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.54	0.15	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.22	1
p/m-Xylene	ND		ug/kg	2.1	0.60	1
o-Xylene	ND		ug/kg	1.1	0.31	1
Xylenes, Total	ND		ug/kg	1.1	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.19	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.15	1
Dibromomethane	ND		ug/kg	2.1	0.26	1
Styrene	ND		ug/kg	1.1	0.21	1
Dichlorodifluoromethane	ND		ug/kg	11	0.98	1
Acetone	14		ug/kg	11	5.2	1
Carbon disulfide	ND		ug/kg	11	4.9	1
2-Butanone	ND		ug/kg	11	2.4	1
Vinyl acetate	ND		ug/kg	11	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.1	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.22	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.30	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.54	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.18	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.1	0.13	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.3	0.18	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.3	0.70	1
Acrylonitrile	ND		ug/kg	4.3	1.2	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-04
Client ID: RB22_0-2
Sample Location: BRONX, NY

Date Collected: 01/03/19 13:00
Date Received: 01/03/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.35	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.21	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.36	1
1,4-Dioxane	ND		ug/kg	110	38.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.19	1
p-Ethyltoluene	ND		ug/kg	2.1	0.41	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.37	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.4	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	102		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-05
 Client ID: RB22_3-5
 Sample Location: BRONX, NY

Date Collected: 01/03/19 13:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/07/19 17:30
 Analyst: AD
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.3	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	0.20	J	ug/kg	1.6	0.15	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.15	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.28	1
Tetrachloroethene	ND		ug/kg	0.53	0.21	1
Chlorobenzene	ND		ug/kg	0.53	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.2	0.73	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.53	0.18	1
Bromodichloromethane	ND		ug/kg	0.53	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.29	1
cis-1,3-Dichloropropene	ND		ug/kg	0.53	0.17	1
1,3-Dichloropropene, Total	ND		ug/kg	0.53	0.17	1
1,1-Dichloropropene	ND		ug/kg	0.53	0.17	1
Bromoform	ND		ug/kg	4.2	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.53	0.18	1
Benzene	ND		ug/kg	0.53	0.18	1
Toluene	ND		ug/kg	1.0	0.57	1
Ethylbenzene	ND		ug/kg	1.0	0.15	1
Chloromethane	ND		ug/kg	4.2	0.98	1
Bromomethane	0.82	J	ug/kg	2.1	0.61	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
Chloroethane	ND		ug/kg	2.1	0.48	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-05

Date Collected: 01/03/19 13:05

Client ID: RB22_3-5

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.53	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.16	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.59	1
o-Xylene	ND		ug/kg	1.0	0.31	1
Xylenes, Total	ND		ug/kg	1.0	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.1	0.25	1
Styrene	ND		ug/kg	1.0	0.21	1
Dichlorodifluoromethane	ND		ug/kg	10	0.96	1
Acetone	5.3	J	ug/kg	10	5.1	1
Carbon disulfide	ND		ug/kg	10	4.8	1
2-Butanone	ND		ug/kg	10	2.3	1
Vinyl acetate	ND		ug/kg	10	2.3	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.22	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.29	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.18	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.53	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.15	1
n-Butylbenzene	ND		ug/kg	1.0	0.18	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.2	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.2	0.18	1
Isopropylbenzene	ND		ug/kg	1.0	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.12	1
Naphthalene	ND		ug/kg	4.2	0.69	1
Acrylonitrile	ND		ug/kg	4.2	1.2	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-05
 Client ID: RB22_3-5
 Sample Location: BRONX, NY

Date Collected: 01/03/19 13:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.0	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.34	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.29	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.35	1
1,4-Dioxane	ND		ug/kg	100	37.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.19	1
p-Ethyltoluene	ND		ug/kg	2.1	0.40	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.36	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.3	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	109		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	103		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-06
 Client ID: RB19_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/07/19 17:56
 Analyst: AD
 Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.0	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.12	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	0.95		ug/kg	0.50	0.20	1
Chlorobenzene	ND		ug/kg	0.50	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.0	0.70	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17	1
Bromodichloromethane	ND		ug/kg	0.50	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.50	0.16	1
Bromoform	ND		ug/kg	4.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17	1
Benzene	ND		ug/kg	0.50	0.17	1
Toluene	ND		ug/kg	1.0	0.55	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.0	0.94	1
Bromomethane	ND		ug/kg	2.0	0.58	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.0	0.45	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-06

Date Collected: 01/03/19 14:00

Client ID: RB19_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.50	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.56	1
o-Xylene	ND		ug/kg	1.0	0.29	1
Xylenes, Total	ND		ug/kg	1.0	0.29	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.0	0.24	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.92	1
Acetone	ND		ug/kg	10	4.8	1
Carbon disulfide	ND		ug/kg	10	4.6	1
2-Butanone	ND		ug/kg	10	2.2	1
Vinyl acetate	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.21	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
1,3-Dichloropropane	ND		ug/kg	2.0	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.0	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.0	0.65	1
Acrylonitrile	ND		ug/kg	4.0	1.2	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-06
 Client ID: RB19_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.0	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.34	1
1,4-Dioxane	ND		ug/kg	100	35.	1
p-Diethylbenzene	ND		ug/kg	2.0	0.18	1
p-Ethyltoluene	ND		ug/kg	2.0	0.39	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19	1
Ethyl ether	ND		ug/kg	2.0	0.34	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	104		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-07
 Client ID: RB19_20-22
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/08/19 18:42
 Analyst: AD
 Percent Solids: 57%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	710	330	1
1,1-Dichloroethane	ND		ug/kg	140	21.	1
Chloroform	ND		ug/kg	210	20.	1
Carbon tetrachloride	ND		ug/kg	140	33.	1
1,2-Dichloropropane	ND		ug/kg	140	18.	1
Dibromochloromethane	ND		ug/kg	140	20.	1
1,1,2-Trichloroethane	ND		ug/kg	140	38.	1
Tetrachloroethene	ND		ug/kg	71	28.	1
Chlorobenzene	ND		ug/kg	71	18.	1
Trichlorofluoromethane	ND		ug/kg	570	99.	1
1,2-Dichloroethane	ND		ug/kg	140	37.	1
1,1,1-Trichloroethane	ND		ug/kg	71	24.	1
Bromodichloromethane	ND		ug/kg	71	16.	1
trans-1,3-Dichloropropene	ND		ug/kg	140	39.	1
cis-1,3-Dichloropropene	ND		ug/kg	71	22.	1
1,3-Dichloropropene, Total	ND		ug/kg	71	22.	1
1,1-Dichloropropene	ND		ug/kg	71	23.	1
Bromoform	ND		ug/kg	570	35.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	71	24.	1
Benzene	ND		ug/kg	71	24.	1
Toluene	ND		ug/kg	140	78.	1
Ethylbenzene	24	J	ug/kg	140	20.	1
Chloromethane	ND		ug/kg	570	130	1
Bromomethane	ND		ug/kg	280	83.	1
Vinyl chloride	ND		ug/kg	140	48.	1
Chloroethane	ND		ug/kg	280	64.	1
1,1-Dichloroethene	ND		ug/kg	140	34.	1
trans-1,2-Dichloroethene	ND		ug/kg	210	20.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-07

Date Collected: 01/03/19 14:05

Client ID: RB19_20-22

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	71	20.	1
1,2-Dichlorobenzene	ND		ug/kg	280	20.	1
1,3-Dichlorobenzene	ND		ug/kg	280	21.	1
1,4-Dichlorobenzene	ND		ug/kg	280	24.	1
Methyl tert butyl ether	ND		ug/kg	280	29.	1
p/m-Xylene	240	J	ug/kg	280	80.	1
o-Xylene	66	J	ug/kg	140	42.	1
Xylenes, Total	310	J	ug/kg	140	42.	1
cis-1,2-Dichloroethene	ND		ug/kg	140	25.	1
1,2-Dichloroethene, Total	ND		ug/kg	140	20.	1
Dibromomethane	ND		ug/kg	280	34.	1
Styrene	ND		ug/kg	140	28.	1
Dichlorodifluoromethane	ND		ug/kg	1400	130	1
Acetone	ND		ug/kg	1400	690	1
Carbon disulfide	ND		ug/kg	1400	650	1
2-Butanone	ND		ug/kg	1400	320	1
Vinyl acetate	ND		ug/kg	1400	310	1
4-Methyl-2-pentanone	ND		ug/kg	1400	180	1
1,2,3-Trichloropropane	ND		ug/kg	280	18.	1
2-Hexanone	ND		ug/kg	1400	170	1
Bromochloromethane	ND		ug/kg	280	29.	1
2,2-Dichloropropane	ND		ug/kg	280	29.	1
1,2-Dibromoethane	ND		ug/kg	140	40.	1
1,3-Dichloropropane	ND		ug/kg	280	24.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	71	19.	1
Bromobenzene	ND		ug/kg	280	21.	1
n-Butylbenzene	33	J	ug/kg	140	24.	1
sec-Butylbenzene	61	J	ug/kg	140	21.	1
tert-Butylbenzene	ND		ug/kg	280	17.	1
o-Chlorotoluene	ND		ug/kg	280	27.	1
p-Chlorotoluene	ND		ug/kg	280	15.	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	430	140	1
Hexachlorobutadiene	ND		ug/kg	570	24.	1
Isopropylbenzene	43	J	ug/kg	140	16.	1
p-Isopropyltoluene	16	J	ug/kg	140	16.	1
Naphthalene	120	J	ug/kg	570	93.	1
Acrylonitrile	ND		ug/kg	570	160	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-07
 Client ID: RB19_20-22
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	38	J	ug/kg	140	24.	1
1,2,3-Trichlorobenzene	ND		ug/kg	280	46.	1
1,2,4-Trichlorobenzene	ND		ug/kg	280	39.	1
1,3,5-Trimethylbenzene	58	J	ug/kg	280	28.	1
1,2,4-Trimethylbenzene	340		ug/kg	280	48.	1
1,4-Dioxane	ND		ug/kg	14000	5000	1
p-Diethylbenzene	120	J	ug/kg	280	25.	1
p-Ethyltoluene	230	J	ug/kg	280	55.	1
1,2,4,5-Tetramethylbenzene	950		ug/kg	280	27.	1
Ethyl ether	ND		ug/kg	280	49.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	710	200	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	94		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-08
 Client ID: RB19_24-25
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:10
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/07/19 18:22
 Analyst: AD
 Percent Solids: 66%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.8	3.1	1
1,1-Dichloroethane	ND		ug/kg	1.4	0.20	1
Chloroform	ND		ug/kg	2.0	0.19	1
Carbon tetrachloride	ND		ug/kg	1.4	0.31	1
1,2-Dichloropropane	ND		ug/kg	1.4	0.17	1
Dibromochloromethane	ND		ug/kg	1.4	0.19	1
1,1,2-Trichloroethane	ND		ug/kg	1.4	0.36	1
Tetrachloroethene	ND		ug/kg	0.68	0.27	1
Chlorobenzene	ND		ug/kg	0.68	0.17	1
Trichlorofluoromethane	ND		ug/kg	5.4	0.94	1
1,2-Dichloroethane	ND		ug/kg	1.4	0.35	1
1,1,1-Trichloroethane	ND		ug/kg	0.68	0.23	1
Bromodichloromethane	ND		ug/kg	0.68	0.15	1
trans-1,3-Dichloropropene	ND		ug/kg	1.4	0.37	1
cis-1,3-Dichloropropene	ND		ug/kg	0.68	0.21	1
1,3-Dichloropropene, Total	ND		ug/kg	0.68	0.21	1
1,1-Dichloropropene	ND		ug/kg	0.68	0.22	1
Bromoform	ND		ug/kg	5.4	0.33	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.68	0.22	1
Benzene	ND		ug/kg	0.68	0.22	1
Toluene	ND		ug/kg	1.4	0.74	1
Ethylbenzene	ND		ug/kg	1.4	0.19	1
Chloromethane	ND		ug/kg	5.4	1.3	1
Bromomethane	ND		ug/kg	2.7	0.79	1
Vinyl chloride	ND		ug/kg	1.4	0.46	1
Chloroethane	ND		ug/kg	2.7	0.61	1
1,1-Dichloroethene	ND		ug/kg	1.4	0.32	1
trans-1,2-Dichloroethene	ND		ug/kg	2.0	0.19	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-08

Date Collected: 01/03/19 14:10

Client ID: RB19_24-25

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.68	0.19	1
1,2-Dichlorobenzene	ND		ug/kg	2.7	0.20	1
1,3-Dichlorobenzene	ND		ug/kg	2.7	0.20	1
1,4-Dichlorobenzene	ND		ug/kg	2.7	0.23	1
Methyl tert butyl ether	ND		ug/kg	2.7	0.27	1
p/m-Xylene	ND		ug/kg	2.7	0.76	1
o-Xylene	ND		ug/kg	1.4	0.40	1
Xylenes, Total	ND		ug/kg	1.4	0.40	1
cis-1,2-Dichloroethene	ND		ug/kg	1.4	0.24	1
1,2-Dichloroethene, Total	ND		ug/kg	1.4	0.19	1
Dibromomethane	ND		ug/kg	2.7	0.32	1
Styrene	ND		ug/kg	1.4	0.27	1
Dichlorodifluoromethane	ND		ug/kg	14	1.2	1
Acetone	44		ug/kg	14	6.5	1
Carbon disulfide	ND		ug/kg	14	6.2	1
2-Butanone	7.4	J	ug/kg	14	3.0	1
Vinyl acetate	ND		ug/kg	14	2.9	1
4-Methyl-2-pentanone	ND		ug/kg	14	1.7	1
1,2,3-Trichloropropane	ND		ug/kg	2.7	0.17	1
2-Hexanone	ND		ug/kg	14	1.6	1
Bromochloromethane	ND		ug/kg	2.7	0.28	1
2,2-Dichloropropane	ND		ug/kg	2.7	0.27	1
1,2-Dibromoethane	ND		ug/kg	1.4	0.38	1
1,3-Dichloropropane	ND		ug/kg	2.7	0.23	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.68	0.18	1
Bromobenzene	ND		ug/kg	2.7	0.20	1
n-Butylbenzene	ND		ug/kg	1.4	0.23	1
sec-Butylbenzene	ND		ug/kg	1.4	0.20	1
tert-Butylbenzene	ND		ug/kg	2.7	0.16	1
o-Chlorotoluene	ND		ug/kg	2.7	0.26	1
p-Chlorotoluene	ND		ug/kg	2.7	0.15	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.1	1.4	1
Hexachlorobutadiene	ND		ug/kg	5.4	0.23	1
Isopropylbenzene	ND		ug/kg	1.4	0.15	1
p-Isopropyltoluene	ND		ug/kg	1.4	0.15	1
Naphthalene	ND		ug/kg	5.4	0.88	1
Acrylonitrile	ND		ug/kg	5.4	1.6	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-08
Client ID: RB19_24-25
Sample Location: BRONX, NY

Date Collected: 01/03/19 14:10
Date Received: 01/03/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.4	0.23	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.7	0.44	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.7	0.37	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.7	0.26	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.7	0.45	1
1,4-Dioxane	ND		ug/kg	140	48.	1
p-Diethylbenzene	ND		ug/kg	2.7	0.24	1
p-Ethyltoluene	ND		ug/kg	2.7	0.52	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.7	0.26	1
Ethyl ether	ND		ug/kg	2.7	0.46	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.8	1.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	105		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-09
 Client ID: SOTB05_010319
 Sample Location: BRONX, NY

Date Collected: 01/03/19 00:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/06/19 15:35
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-09
 Client ID: SOTB05_010319
 Sample Location: BRONX, NY

Date Collected: 01/03/19 00:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-09
Client ID: SOTB05_010319
Sample Location: BRONX, NY

Date Collected: 01/03/19 00:00
Date Received: 01/03/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	104		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/06/19 12:10
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG1195197-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/06/19 12:10
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG1195197-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8260C
 Analytical Date: 01/06/19 12:10
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09 Batch: WG1195197-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	104		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	103		70-130



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/07/19 14:04
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-06,08 Batch: WG1195498-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	0.96	J	ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/07/19 14:04
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-06,08 Batch: WG1195498-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/07/19 14:04
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-06,08 Batch: WG1195498-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	100		70-130



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/08/19 10:15
 Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 07 Batch: WG1195747-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	33	J	ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/08/19 10:15
 Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 07 Batch: WG1195747-5					
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/08/19 10:15
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 07 Batch: WG1195747-5					
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	5000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	93		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1195197-3 WG1195197-4								
Methylene chloride	110		110		70-130	0		20
1,1-Dichloroethane	110		120		70-130	9		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	110		110		63-132	0		20
1,2-Dichloropropane	120		120		70-130	0		20
Dibromochloromethane	110		110		63-130	0		20
1,1,2-Trichloroethane	110		110		70-130	0		20
Tetrachloroethene	100		100		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	100		100		62-150	0		20
1,2-Dichloroethane	110		110		70-130	0		20
1,1,1-Trichloroethane	110		110		67-130	0		20
Bromodichloromethane	120		120		67-130	0		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	110		110		70-130	0		20
1,1-Dichloropropene	110		110		70-130	0		20
Bromoform	100		99		54-136	1		20
1,1,1,2-Tetrachloroethane	100		100		67-130	0		20
Benzene	110		110		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	110		110		70-130	0		20
Chloromethane	94		95		64-130	1		20
Bromomethane	48		54		39-139	12		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1195197-3 WG1195197-4								
Vinyl chloride	100		100		55-140	0		20
Chloroethane	100		110		55-138	10		20
1,1-Dichloroethene	110		100		61-145	10		20
trans-1,2-Dichloroethene	110		110		70-130	0		20
Trichloroethene	110		110		70-130	0		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		99		70-130	1		20
Methyl tert butyl ether	110		110		63-130	0		20
p/m-Xylene	105		105		70-130	0		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	110		110		70-130	0		20
Dibromomethane	110		110		70-130	0		20
1,2,3-Trichloropropane	110		110		64-130	0		20
Acrylonitrile	100		100		70-130	0		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	92		92		36-147	0		20
Acetone	140		120		58-148	15		20
Carbon disulfide	100		100		51-130	0		20
2-Butanone	89		82		63-138	8		20
Vinyl acetate	120		120		70-130	0		20
4-Methyl-2-pentanone	97		98		59-130	1		20
2-Hexanone	110		100		57-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1195197-3 WG1195197-4								
Bromochloromethane	120		120		70-130	0		20
2,2-Dichloropropane	110		110		63-133	0		20
1,2-Dibromoethane	110		110		70-130	0		20
1,3-Dichloropropane	110		100		70-130	10		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	100		99		70-130	1		20
n-Butylbenzene	110		100		53-136	10		20
sec-Butylbenzene	100		100		70-130	0		20
tert-Butylbenzene	100		100		70-130	0		20
o-Chlorotoluene	97		96		70-130	1		20
p-Chlorotoluene	100		100		70-130	0		20
1,2-Dibromo-3-chloropropane	96		94		41-144	2		20
Hexachlorobutadiene	100		100		63-130	0		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		100		70-130	0		20
Naphthalene	97		97		70-130	0		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	97		98		70-130	1		20
1,2,4-Trichlorobenzene	100		100		70-130	0		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		110		70-130	10		20
1,4-Dioxane	144		128		56-162	12		20
p-Diethylbenzene	100		100		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900324

Report Date: 01/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09 Batch: WG1195197-3 WG1195197-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	100		100		70-130	0		20
Ethyl ether	110		110		59-134	0		20
trans-1,4-Dichloro-2-butene	99		94		70-130	5		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	108		106		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	105		104		70-130
Dibromofluoromethane	104		103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-06,08 Batch: WG1195498-3 WG1195498-4								
Methylene chloride	91		90		70-130	1		30
1,1-Dichloroethane	106		104		70-130	2		30
Chloroform	91		88		70-130	3		30
Carbon tetrachloride	100		101		70-130	1		30
1,2-Dichloropropane	102		104		70-130	2		30
Dibromochloromethane	99		99		70-130	0		30
1,1,2-Trichloroethane	88		86		70-130	2		30
Tetrachloroethene	94		94		70-130	0		30
Chlorobenzene	90		89		70-130	1		30
Trichlorofluoromethane	93		102		70-139	9		30
1,2-Dichloroethane	100		100		70-130	0		30
1,1,1-Trichloroethane	100		100		70-130	0		30
Bromodichloromethane	94		92		70-130	2		30
trans-1,3-Dichloropropene	91		90		70-130	1		30
cis-1,3-Dichloropropene	90		90		70-130	0		30
1,1-Dichloropropene	90		91		70-130	1		30
Bromoform	90		91		70-130	1		30
1,1,2,2-Tetrachloroethane	83		82		70-130	1		30
Benzene	88		87		70-130	1		30
Toluene	89		88		70-130	1		30
Ethylbenzene	88		87		70-130	1		30
Chloromethane	149	Q	149	Q	52-130	0		30
Bromomethane	162	Q	164	Q	57-147	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-06,08 Batch: WG1195498-3 WG1195498-4								
Vinyl chloride	138	Q	138	Q	67-130	0		30
Chloroethane	119		130		50-151	9		30
1,1-Dichloroethene	110		98		65-135	12		30
trans-1,2-Dichloroethene	95		98		70-130	3		30
Trichloroethene	94		94		70-130	0		30
1,2-Dichlorobenzene	86		87		70-130	1		30
1,3-Dichlorobenzene	86		85		70-130	1		30
1,4-Dichlorobenzene	85		85		70-130	0		30
Methyl tert butyl ether	89		90		66-130	1		30
p/m-Xylene	87		87		70-130	0		30
o-Xylene	88		87		70-130	1		30
cis-1,2-Dichloroethene	93		95		70-130	2		30
Dibromomethane	90		90		70-130	0		30
Styrene	86		88		70-130	2		30
Dichlorodifluoromethane	145		143		30-146	1		30
Acetone	98		95		54-140	3		30
Carbon disulfide	104		84		59-130	21		30
2-Butanone	91		92		70-130	1		30
Vinyl acetate	116		114		70-130	2		30
4-Methyl-2-pentanone	99		100		70-130	1		30
1,2,3-Trichloropropane	80		78		68-130	3		30
2-Hexanone	89		84		70-130	6		30
Bromochloromethane	103		103		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-06,08 Batch: WG1195498-3 WG1195498-4								
2,2-Dichloropropane	92		92		70-130	0		30
1,2-Dibromoethane	90		91		70-130	1		30
1,3-Dichloropropane	88		88		69-130	0		30
1,1,1,2-Tetrachloroethane	100		100		70-130	0		30
Bromobenzene	86		85		70-130	1		30
n-Butylbenzene	83		84		70-130	1		30
sec-Butylbenzene	81		80		70-130	1		30
tert-Butylbenzene	86		86		70-130	0		30
o-Chlorotoluene	81		79		70-130	3		30
p-Chlorotoluene	82		81		70-130	1		30
1,2-Dibromo-3-chloropropane	84		85		68-130	1		30
Hexachlorobutadiene	82		84		67-130	2		30
Isopropylbenzene	80		79		70-130	1		30
p-Isopropyltoluene	86		87		70-130	1		30
Naphthalene	82		82		70-130	0		30
Acrylonitrile	114		115		70-130	1		30
n-Propylbenzene	81		80		70-130	1		30
1,2,3-Trichlorobenzene	81		81		70-130	0		30
1,2,4-Trichlorobenzene	82		81		70-130	1		30
1,3,5-Trimethylbenzene	80		79		70-130	1		30
1,2,4-Trimethylbenzene	82		81		70-130	1		30
1,4-Dioxane	78		79		65-136	1		30
p-Diethylbenzene	85		85		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900324

Report Date: 01/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-06,08 Batch: WG1195498-3 WG1195498-4								
p-Ethyltoluene	79		79		70-130	0		30
1,2,4,5-Tetramethylbenzene	80		80		70-130	0		30
Ethyl ether	94		83		67-130	12		30
trans-1,4-Dichloro-2-butene	101		95		70-130	6		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	103		104		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	94		94		70-130
Dibromofluoromethane	98		100		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG1195747-3 WG1195747-4								
Methylene chloride	94		94		70-130	0		30
1,1-Dichloroethane	100		100		70-130	0		30
Chloroform	98		101		70-130	3		30
Carbon tetrachloride	103		102		70-130	1		30
1,2-Dichloropropane	98		99		70-130	1		30
Dibromochloromethane	100		102		70-130	2		30
1,1,2-Trichloroethane	99		100		70-130	1		30
Tetrachloroethene	106		104		70-130	2		30
Chlorobenzene	102		103		70-130	1		30
Trichlorofluoromethane	99		99		70-139	0		30
1,2-Dichloroethane	96		98		70-130	2		30
1,1,1-Trichloroethane	102		103		70-130	1		30
Bromodichloromethane	99		101		70-130	2		30
trans-1,3-Dichloropropene	102		104		70-130	2		30
cis-1,3-Dichloropropene	100		101		70-130	1		30
1,1-Dichloropropene	104		104		70-130	0		30
Bromoform	100		103		70-130	3		30
1,1,2,2-Tetrachloroethane	96		100		70-130	4		30
Benzene	99		101		70-130	2		30
Toluene	104		104		70-130	0		30
Ethylbenzene	106		106		70-130	0		30
Chloromethane	100		98		52-130	2		30
Bromomethane	92		91		57-147	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG1195747-3 WG1195747-4								
Vinyl chloride	99		97		67-130	2		30
Chloroethane	97		96		50-151	1		30
1,1-Dichloroethene	102		102		65-135	0		30
trans-1,2-Dichloroethene	101		101		70-130	0		30
Trichloroethene	101		100		70-130	1		30
1,2-Dichlorobenzene	102		104		70-130	2		30
1,3-Dichlorobenzene	105		106		70-130	1		30
1,4-Dichlorobenzene	104		104		70-130	0		30
Methyl tert butyl ether	96		98		66-130	2		30
p/m-Xylene	106		107		70-130	1		30
o-Xylene	105		106		70-130	1		30
cis-1,2-Dichloroethene	100		100		70-130	0		30
Dibromomethane	94		98		70-130	4		30
Styrene	106		108		70-130	2		30
Dichlorodifluoromethane	99		99		30-146	0		30
Acetone	94		98		54-140	4		30
Carbon disulfide	96		95		59-130	1		30
2-Butanone	92		96		70-130	4		30
Vinyl acetate	95		97		70-130	2		30
4-Methyl-2-pentanone	90		92		70-130	2		30
1,2,3-Trichloropropane	98		100		68-130	2		30
2-Hexanone	90		94		70-130	4		30
Bromochloromethane	100		100		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG1195747-3 WG1195747-4								
2,2-Dichloropropane	104		104		70-130	0		30
1,2-Dibromoethane	98		101		70-130	3		30
1,3-Dichloropropane	99		101		69-130	2		30
1,1,1,2-Tetrachloroethane	103		105		70-130	2		30
Bromobenzene	102		105		70-130	3		30
n-Butylbenzene	109		111		70-130	2		30
sec-Butylbenzene	110		111		70-130	1		30
tert-Butylbenzene	108		110		70-130	2		30
o-Chlorotoluene	108		111		70-130	3		30
p-Chlorotoluene	107		108		70-130	1		30
1,2-Dibromo-3-chloropropane	90		96		68-130	6		30
Hexachlorobutadiene	108		109		67-130	1		30
Isopropylbenzene	108		109		70-130	1		30
p-Isopropyltoluene	110		111		70-130	1		30
Naphthalene	97		102		70-130	5		30
Acrylonitrile	92		98		70-130	6		30
n-Propylbenzene	108		110		70-130	2		30
1,2,3-Trichlorobenzene	100		103		70-130	3		30
1,2,4-Trichlorobenzene	102		105		70-130	3		30
1,3,5-Trimethylbenzene	108		109		70-130	1		30
1,2,4-Trimethylbenzene	108		108		70-130	0		30
1,4-Dioxane	94		100		65-136	6		30
p-Diethylbenzene	108		108		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900324

Report Date: 01/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 07 Batch: WG1195747-3 WG1195747-4								
p-Ethyltoluene	108		109		70-130	1		30
1,2,4,5-Tetramethylbenzene	108		108		70-130	0		30
Ethyl ether	97		98		67-130	1		30
trans-1,4-Dichloro-2-butene	98		100		70-130	2		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	93		92		70-130
Toluene-d8	99		99		70-130
4-Bromofluorobenzene	101		101		70-130
Dibromofluoromethane	94		94		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-06,08 QC Batch ID: WG1195498-6 WG1195498-7 QC Sample: L1900324-02 Client ID: RB21_2-4												
Methylene chloride	ND	107	98	91		110	104		70-130	14		30
1,1-Dichloroethane	ND	107	120	114		130	122		70-130	8		30
Chloroform	ND	107	98	92		110	101		70-130	11		30
Carbon tetrachloride	ND	107	120	115		140	128		70-130	12		30
1,2-Dichloropropane	ND	107	110	103		120	115		70-130	12		30
Dibromochloromethane	ND	107	93	86		110	102		70-130	17		30
1,1,2-Trichloroethane	ND	107	84	78		96	88		70-130	13		30
Tetrachloroethene	ND	107	86	81		110	105		70-130	28		30
Chlorobenzene	ND	107	70	66	Q	96	89		70-130	31	Q	30
Trichlorofluoromethane	ND	107	140	130		140	132		70-139	3		30
1,2-Dichloroethane	ND	107	100	93		110	105		70-130	13		30
1,1,1-Trichloroethane	ND	107	120	115		130	124		70-130	9		30
Bromodichloromethane	ND	107	95	89		110	101		70-130	14		30
trans-1,3-Dichloropropene	ND	107	76	71		97	90		70-130	24		30
cis-1,3-Dichloropropene	ND	107	86	80		110	98		70-130	21		30
1,1-Dichloropropene	ND	107	110	100		120	115		70-130	15		30
Bromoform	ND	107	82	77		100	96		70-130	23		30
1,1,2,2-Tetrachloroethane	ND	107	71	67	Q	83	77		70-130	16		30
Benzene	ND	107	96	90		110	101		70-130	12		30
Toluene	ND	107	84	78		110	97		70-130	23		30
Ethylbenzene	ND	107	73	68	Q	100	96		70-130	35	Q	30
Chloromethane	ND	107	180	166	Q	190	176	Q	52-130	7		30
Bromomethane	ND	107	150	137		170	161	Q	57-147	17		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-06,08 QC Batch ID: WG1195498-6 WG1195498-7 QC Sample: L1900324-02 Client ID: RB21_2-4												
Vinyl chloride	ND	107	180	168	Q	190	176	Q	67-130	5		30
Chloroethane	ND	107	190	179	Q	200	180	Q	50-151	2		30
1,1-Dichloroethene	ND	107	61	57	Q	63	58	Q	65-135	2		30
trans-1,2-Dichloroethene	ND	107	100	97		120	111		70-130	14		30
Trichloroethene	ND	107	100	93		120	111		70-130	18		30
1,2-Dichlorobenzene	ND	107	50	46	Q	77	71		70-130	43	Q	30
1,3-Dichlorobenzene	ND	107	46	43	Q	78	72		70-130	51	Q	30
1,4-Dichlorobenzene	ND	107	43	40	Q	74	68	Q	70-130	53	Q	30
Methyl tert butyl ether	ND	107	100	93		110	98		66-130	6		30
p/m-Xylene	ND	214	140	65	Q	200	93		70-130	37	Q	30
o-Xylene	ND	214	150	68	Q	200	93		70-130	32	Q	30
cis-1,2-Dichloroethene	ND	107	96	89		110	104		70-130	16		30
Dibromomethane	ND	107	82	76		99	91		70-130	19		30
Styrene	ND	214	130	61	Q	190	87		70-130	36	Q	30
Dichlorodifluoromethane	ND	107	190	179	Q	200	186	Q	30-146	5		30
Acetone	ND	107	120	107		110	98		54-140	8		30
Carbon disulfide	ND	107	79	73		59	54	Q	59-130	29		30
2-Butanone	ND	107	110	99		110	105		70-130	7		30
Vinyl acetate	ND	107	50	46	Q	44	40	Q	70-130	13		30
4-Methyl-2-pentanone	ND	107	110	104		120	112		70-130	9		30
1,2,3-Trichloropropane	ND	107	71	66	Q	85	78		68-130	18		30
2-Hexanone	ND	107	96	89		110	97		70-130	9		30
Bromochloromethane	ND	107	95	88		110	101		70-130	14		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-06,08 QC Batch ID: WG1195498-6 WG1195498-7 QC Sample: L1900324-02 Client ID: RB21_2-4												
2,2-Dichloropropane	ND	107	120	110		130	117		70-130	7		30
1,2-Dibromoethane	ND	107	80	74		96	88		70-130	18		30
1,3-Dichloropropane	ND	107	80	74		93	86		69-130	15		30
1,1,1,2-Tetrachloroethane	ND	107	93	87		110	104		70-130	18		30
Bromobenzene	ND	107	58	54	Q	84	78		70-130	37	Q	30
n-Butylbenzene	ND	107	35	33	Q	73	68	Q	70-130	70	Q	30
sec-Butylbenzene	ND	107	49	45	Q	84	78		70-130	54	Q	30
tert-Butylbenzene	ND	107	60	56	Q	96	89		70-130	46	Q	30
o-Chlorotoluene	ND	107	54	50	Q	87	80		70-130	47	Q	30
p-Chlorotoluene	ND	107	48	44	Q	82	76		70-130	54	Q	30
1,2-Dibromo-3-chloropropane	ND	107	75	70		90	83		68-130	17		30
Hexachlorobutadiene	ND	107	24	22	Q	44	40	Q	67-130	58	Q	30
Isopropylbenzene	ND	107	61	57	Q	96	88		70-130	44	Q	30
p-Isopropyltoluene	ND	107	46	43	Q	87	80		70-130	62	Q	30
Naphthalene	ND	107	48	45	Q	64	59	Q	70-130	28		30
Acrylonitrile	ND	107	110	99		120	114		70-130	15		30
n-Propylbenzene	ND	107	52	48	Q	91	84		70-130	56	Q	30
1,2,3-Trichlorobenzene	ND	107	35	33	Q	52	48	Q	70-130	38	Q	30
1,2,4-Trichlorobenzene	ND	107	32	30	Q	53	49	Q	70-130	49	Q	30
1,3,5-Trimethylbenzene	ND	107	53	49	Q	87	80		70-130	49	Q	30
1,2,4-Trimethylbenzene	ND	107	49	46	Q	85	78		70-130	53	Q	30
1,4-Dioxane	ND	5350	5400	101		5700	106		65-136	5		30
p-Diethylbenzene	ND	107	39	36	Q	79	73		70-130	68	Q	30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-06,08 QC Batch ID: WG1195498-6 WG1195498-7 QC Sample: L1900324-02 Client ID: RB21_2-4												
p-Ethyltoluene	ND	107	48	44	Q	86	79		70-130	57	Q	30
1,2,4,5-Tetramethylbenzene	ND	107	40	38	Q	71	66	Q	70-130	55	Q	30
Ethyl ether	ND	107	100	97		110	97		67-130	1		30
trans-1,4-Dichloro-2-butene	ND	107	80	75		110	97		70-130	27		30

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	109		107		70-130
4-Bromofluorobenzene	95		96		70-130
Dibromofluoromethane	101		102		70-130
Toluene-d8	100		99		70-130

SEMIVOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-01 D
 Client ID: RB21_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:30
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/10/19 10:47
 Analyst: ALS
 Percent Solids: 92%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 13:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	660		ug/kg	280	37.	2
1,2,4-Trichlorobenzene	ND		ug/kg	360	41.	2
Hexachlorobenzene	ND		ug/kg	210	40.	2
Bis(2-chloroethyl)ether	ND		ug/kg	320	48.	2
2-Chloronaphthalene	ND		ug/kg	360	35.	2
1,2-Dichlorobenzene	ND		ug/kg	360	64.	2
1,3-Dichlorobenzene	ND		ug/kg	360	61.	2
1,4-Dichlorobenzene	ND		ug/kg	360	62.	2
3,3'-Dichlorobenzidine	ND		ug/kg	360	95.	2
2,4-Dinitrotoluene	ND		ug/kg	360	71.	2
2,6-Dinitrotoluene	ND		ug/kg	360	61.	2
Fluoranthene	12000		ug/kg	210	41.	2
4-Chlorophenyl phenyl ether	ND		ug/kg	360	38.	2
4-Bromophenyl phenyl ether	ND		ug/kg	360	54.	2
Bis(2-chloroisopropyl)ether	ND		ug/kg	430	61.	2
Bis(2-chloroethoxy)methane	ND		ug/kg	390	36.	2
Hexachlorobutadiene	ND		ug/kg	360	52.	2
Hexachlorocyclopentadiene	ND		ug/kg	1000	320	2
Hexachloroethane	ND		ug/kg	280	58.	2
Isophorone	ND		ug/kg	320	46.	2
Naphthalene	410		ug/kg	360	44.	2
Nitrobenzene	ND		ug/kg	320	53.	2
NDPA/DPA	ND		ug/kg	280	41.	2
n-Nitrosodi-n-propylamine	ND		ug/kg	360	55.	2
Bis(2-ethylhexyl)phthalate	ND		ug/kg	360	120	2
Butyl benzyl phthalate	ND		ug/kg	360	90.	2
Di-n-butylphthalate	ND		ug/kg	360	68.	2
Di-n-octylphthalate	ND		ug/kg	360	120	2

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-01 D

Date Collected: 01/03/19 11:30

Client ID: RB21_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	360	33.	2
Dimethyl phthalate	ND		ug/kg	360	75.	2
Benzo(a)anthracene	5900		ug/kg	210	40.	2
Benzo(a)pyrene	5100		ug/kg	280	87.	2
Benzo(b)fluoranthene	6300		ug/kg	210	60.	2
Benzo(k)fluoranthene	2300		ug/kg	210	57.	2
Chrysene	6000		ug/kg	210	37.	2
Acenaphthylene	220	J	ug/kg	280	55.	2
Anthracene	1700		ug/kg	210	70.	2
Benzo(ghi)perylene	3200		ug/kg	280	42.	2
Fluorene	670		ug/kg	360	35.	2
Phenanthrene	9900		ug/kg	210	43.	2
Dibenzo(a,h)anthracene	820		ug/kg	210	41.	2
Indeno(1,2,3-cd)pyrene	3500		ug/kg	280	50.	2
Pyrene	11000		ug/kg	210	36.	2
Biphenyl	ND		ug/kg	810	83.	2
4-Chloroaniline	ND		ug/kg	360	65.	2
2-Nitroaniline	ND		ug/kg	360	69.	2
3-Nitroaniline	ND		ug/kg	360	67.	2
4-Nitroaniline	ND		ug/kg	360	150	2
Dibenzofuran	520		ug/kg	360	34.	2
2-Methylnaphthalene	230	J	ug/kg	430	43.	2
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	360	37.	2
Acetophenone	ND		ug/kg	360	44.	2
2,4,6-Trichlorophenol	ND		ug/kg	210	68.	2
p-Chloro-m-cresol	ND		ug/kg	360	53.	2
2-Chlorophenol	ND		ug/kg	360	42.	2
2,4-Dichlorophenol	ND		ug/kg	320	57.	2
2,4-Dimethylphenol	ND		ug/kg	360	120	2
2-Nitrophenol	ND		ug/kg	770	130	2
4-Nitrophenol	ND		ug/kg	500	140	2
2,4-Dinitrophenol	ND		ug/kg	1700	170	2
4,6-Dinitro-o-cresol	ND		ug/kg	930	170	2
Pentachlorophenol	ND		ug/kg	280	79.	2
Phenol	ND		ug/kg	360	54.	2
2-Methylphenol	ND		ug/kg	360	55.	2
3-Methylphenol/4-Methylphenol	ND		ug/kg	510	56.	2

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-01 D
 Client ID: RB21_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:30
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	360	68.	2
Benzoic Acid	ND		ug/kg	1200	360	2
Benzyl Alcohol	ND		ug/kg	360	110	2
Carbazole	850		ug/kg	360	35.	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	40		25-120
Phenol-d6	69		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	87		30-120
2,4,6-Tribromophenol	12		10-136
4-Terphenyl-d14	88		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-02
 Client ID: RB21_2-4
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:35
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/05/19 17:12
 Analyst: ALS
 Percent Solids: 95%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 10:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	20.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	23.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	31.	1
1,3-Dichlorobenzene	ND		ug/kg	170	29.	1
1,4-Dichlorobenzene	ND		ug/kg	170	30.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	45.	1
2,4-Dinitrotoluene	ND		ug/kg	170	34.	1
2,6-Dinitrotoluene	ND		ug/kg	170	29.	1
Fluoranthene	280		ug/kg	100	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	29.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.	1
Hexachlorobutadiene	ND		ug/kg	170	25.	1
Hexachlorocyclopentadiene	ND		ug/kg	490	150	1
Hexachloroethane	ND		ug/kg	140	28.	1
Isophorone	ND		ug/kg	150	22.	1
Naphthalene	23	J	ug/kg	170	21.	1
Nitrobenzene	ND		ug/kg	150	25.	1
NDPA/DPA	ND		ug/kg	140	19.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	26.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	59.	1
Butyl benzyl phthalate	ND		ug/kg	170	43.	1
Di-n-butylphthalate	ND		ug/kg	170	32.	1
Di-n-octylphthalate	ND		ug/kg	170	58.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-02

Date Collected: 01/03/19 11:35

Client ID: RB21_2-4

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	36.	1
Benzo(a)anthracene	120		ug/kg	100	19.	1
Benzo(a)pyrene	120	J	ug/kg	140	42.	1
Benzo(b)fluoranthene	180		ug/kg	100	29.	1
Benzo(k)fluoranthene	46	J	ug/kg	100	27.	1
Chrysene	140		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	26.	1
Anthracene	ND		ug/kg	100	33.	1
Benzo(ghi)perylene	80	J	ug/kg	140	20.	1
Fluorene	ND		ug/kg	170	16.	1
Phenanthrene	130		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	85	J	ug/kg	140	24.	1
Pyrene	290		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	390	40.	1
4-Chloroaniline	ND		ug/kg	170	31.	1
2-Nitroaniline	ND		ug/kg	170	33.	1
3-Nitroaniline	ND		ug/kg	170	32.	1
4-Nitroaniline	ND		ug/kg	170	71.	1
Dibenzofuran	ND		ug/kg	170	16.	1
2-Methylnaphthalene	ND		ug/kg	200	21.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	ND		ug/kg	170	21.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	32.	1
p-Chloro-m-cresol	ND		ug/kg	170	25.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	150	27.	1
2,4-Dimethylphenol	ND		ug/kg	170	56.	1
2-Nitrophenol	ND		ug/kg	370	64.	1
4-Nitrophenol	ND		ug/kg	240	70.	1
2,4-Dinitrophenol	ND		ug/kg	820	79.	1
4,6-Dinitro-o-cresol	ND		ug/kg	440	82.	1
Pentachlorophenol	ND		ug/kg	140	38.	1
Phenol	ND		ug/kg	170	26.	1
2-Methylphenol	ND		ug/kg	170	26.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	27.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-02
Client ID: RB21_2-4
Sample Location: BRONX, NY

Date Collected: 01/03/19 11:35
Date Received: 01/03/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	33.	1
Benzoic Acid	ND		ug/kg	550	170	1
Benzyl Alcohol	ND		ug/kg	170	52.	1
Carbazole	ND		ug/kg	170	16.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		25-120
Phenol-d6	65		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	65		30-120
2,4,6-Tribromophenol	71		10-136
4-Terphenyl-d14	71		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-03
 Client ID: RB21_18-20
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:40
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/10/19 11:38
 Analyst: ALS
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 13:31

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	28	J	ug/kg	130	17.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	19.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	23.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	30.	1
1,3-Dichlorobenzene	ND		ug/kg	170	29.	1
1,4-Dichlorobenzene	ND		ug/kg	170	29.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	45.	1
2,4-Dinitrotoluene	ND		ug/kg	170	34.	1
2,6-Dinitrotoluene	ND		ug/kg	170	29.	1
Fluoranthene	440		ug/kg	100	19.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	29.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.	1
Hexachlorobutadiene	ND		ug/kg	170	25.	1
Hexachlorocyclopentadiene	ND		ug/kg	480	150	1
Hexachloroethane	ND		ug/kg	130	27.	1
Isophorone	ND		ug/kg	150	22.	1
Naphthalene	23	J	ug/kg	170	20.	1
Nitrobenzene	ND		ug/kg	150	25.	1
NDPA/DPA	ND		ug/kg	130	19.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	26.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	58.	1
Butyl benzyl phthalate	ND		ug/kg	170	42.	1
Di-n-butylphthalate	ND		ug/kg	170	32.	1
Di-n-octylphthalate	ND		ug/kg	170	57.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-03

Date Collected: 01/03/19 11:40

Client ID: RB21_18-20

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	35.	1
Benzo(a)anthracene	230		ug/kg	100	19.	1
Benzo(a)pyrene	190		ug/kg	130	41.	1
Benzo(b)fluoranthene	240		ug/kg	100	28.	1
Benzo(k)fluoranthene	85	J	ug/kg	100	27.	1
Chrysene	220		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	130	26.	1
Anthracene	59	J	ug/kg	100	33.	1
Benzo(ghi)perylene	120	J	ug/kg	130	20.	1
Fluorene	26	J	ug/kg	170	16.	1
Phenanthrene	370		ug/kg	100	20.	1
Dibenzo(a,h)anthracene	36	J	ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	140		ug/kg	130	24.	1
Pyrene	420		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	380	39.	1
4-Chloroaniline	ND		ug/kg	170	31.	1
2-Nitroaniline	ND		ug/kg	170	32.	1
3-Nitroaniline	ND		ug/kg	170	32.	1
4-Nitroaniline	ND		ug/kg	170	70.	1
Dibenzofuran	21	J	ug/kg	170	16.	1
2-Methylnaphthalene	ND		ug/kg	200	20.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	ND		ug/kg	170	21.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	32.	1
p-Chloro-m-cresol	ND		ug/kg	170	25.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	150	27.	1
2,4-Dimethylphenol	ND		ug/kg	170	56.	1
2-Nitrophenol	ND		ug/kg	360	63.	1
4-Nitrophenol	ND		ug/kg	240	69.	1
2,4-Dinitrophenol	ND		ug/kg	810	79.	1
4,6-Dinitro-o-cresol	ND		ug/kg	440	81.	1
Pentachlorophenol	ND		ug/kg	130	37.	1
Phenol	ND		ug/kg	170	25.	1
2-Methylphenol	ND		ug/kg	170	26.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-03
Client ID: RB21_18-20
Sample Location: BRONX, NY

Date Collected: 01/03/19 11:40
Date Received: 01/03/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	32.	1
Benzoic Acid	ND		ug/kg	550	170	1
Benzyl Alcohol	ND		ug/kg	170	52.	1
Carbazole	32	J	ug/kg	170	16.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	84		30-120
2,4,6-Tribromophenol	53		10-136
4-Terphenyl-d14	69		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-04
 Client ID: RB22_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 13:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/06/19 01:43
 Analyst: SZ
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 10:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	89	J	ug/kg	140	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	2400		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	63	J	ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	63.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	62.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-04

Date Collected: 01/03/19 13:00

Client ID: RB22_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	1100		ug/kg	110	20.	1
Benzo(a)pyrene	1100		ug/kg	140	44.	1
Benzo(b)fluoranthene	1400		ug/kg	110	30.	1
Benzo(k)fluoranthene	520		ug/kg	110	29.	1
Chrysene	1100		ug/kg	110	19.	1
Acenaphthylene	160		ug/kg	140	28.	1
Anthracene	260		ug/kg	110	35.	1
Benzo(ghi)perylene	710		ug/kg	140	21.	1
Fluorene	79	J	ug/kg	180	18.	1
Phenanthrene	1400		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	170		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	750		ug/kg	140	25.	1
Pyrene	2000		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	42.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	75.	1
Dibenzofuran	63	J	ug/kg	180	17.	1
2-Methylnaphthalene	30	J	ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	60.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	250	74.	1
2,4-Dinitrophenol	ND		ug/kg	870	84.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	87.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-04
 Client ID: RB22_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 13:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	590	180	1
Benzyl Alcohol	ND		ug/kg	180	55.	1
Carbazole	120	J	ug/kg	180	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		25-120
Phenol-d6	57		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	66		30-120
2,4,6-Tribromophenol	48		10-136
4-Terphenyl-d14	53		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-05
 Client ID: RB22_3-5
 Sample Location: BRONX, NY

Date Collected: 01/03/19 13:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/05/19 23:35
 Analyst: SZ
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 10:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	180		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	62.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	61.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-05

Date Collected: 01/03/19 13:05

Client ID: RB22_3-5

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	62	J	ug/kg	110	20.	1
Benzo(a)pyrene	48	J	ug/kg	140	44.	1
Benzo(b)fluoranthene	85	J	ug/kg	110	30.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	67	J	ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	32	J	ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	100	J	ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	29	J	ug/kg	140	25.	1
Pyrene	160		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	42.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	75.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	60.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	250	74.	1
2,4-Dinitrophenol	ND		ug/kg	870	84.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	87.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-05
 Client ID: RB22_3-5
 Sample Location: BRONX, NY

Date Collected: 01/03/19 13:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	580	180	1
Benzyl Alcohol	ND		ug/kg	180	55.	1
Carbazole	ND		ug/kg	180	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	39		25-120
Phenol-d6	47		10-120
Nitrobenzene-d5	57		23-120
2-Fluorobiphenyl	56		30-120
2,4,6-Tribromophenol	22		10-136
4-Terphenyl-d14	40		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-06
 Client ID: RB19_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/06/19 02:09
 Analyst: SZ
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 10:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	91	J	ug/kg	150	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	33.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	49.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	1800		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	160	24.	1
Naphthalene	130	J	ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	63.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	35.	1
Di-n-octylphthalate	ND		ug/kg	180	62.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-06

Date Collected: 01/03/19 14:00

Client ID: RB19_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	1200		ug/kg	110	21.	1
Benzo(a)pyrene	1300		ug/kg	150	45.	1
Benzo(b)fluoranthene	1700		ug/kg	110	31.	1
Benzo(k)fluoranthene	600		ug/kg	110	29.	1
Chrysene	1200		ug/kg	110	19.	1
Acenaphthylene	710		ug/kg	150	28.	1
Anthracene	360		ug/kg	110	36.	1
Benzo(ghi)perylene	1200		ug/kg	150	22.	1
Fluorene	82	J	ug/kg	180	18.	1
Phenanthrene	960		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	250		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	1200		ug/kg	150	26.	1
Pyrene	1500		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	42.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	76.	1
Dibenzofuran	72	J	ug/kg	180	17.	1
2-Methylnaphthalene	67	J	ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	22.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	60.	1
2-Nitrophenol	ND		ug/kg	400	69.	1
4-Nitrophenol	ND		ug/kg	260	75.	1
2,4-Dinitrophenol	ND		ug/kg	880	85.	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	88.	1
Pentachlorophenol	ND		ug/kg	150	40.	1
Phenol	ND		ug/kg	180	28.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	29.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-06
 Client ID: RB19_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	590	180	1
Benzyl Alcohol	ND		ug/kg	180	56.	1
Carbazole	120	J	ug/kg	180	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	54		25-120
Phenol-d6	62		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	64		30-120
2,4,6-Tribromophenol	59		10-136
4-Terphenyl-d14	50		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-07
 Client ID: RB19_20-22
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/05/19 23:09
 Analyst: SZ
 Percent Solids: 57%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 12:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	660	86.	1
1,2,4-Trichlorobenzene	ND		ug/kg	830	95.	1
Hexachlorobenzene	ND		ug/kg	500	93.	1
Bis(2-chloroethyl)ether	ND		ug/kg	750	110	1
2-Chloronaphthalene	ND		ug/kg	830	82.	1
1,2-Dichlorobenzene	ND		ug/kg	830	150	1
1,3-Dichlorobenzene	ND		ug/kg	830	140	1
1,4-Dichlorobenzene	ND		ug/kg	830	140	1
3,3'-Dichlorobenzidine	ND		ug/kg	830	220	1
2,4-Dinitrotoluene	ND		ug/kg	830	160	1
2,6-Dinitrotoluene	ND		ug/kg	830	140	1
Fluoranthene	440	J	ug/kg	500	95.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	830	89.	1
4-Bromophenyl phenyl ether	ND		ug/kg	830	130	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	1000	140	1
Bis(2-chloroethoxy)methane	ND		ug/kg	900	83.	1
Hexachlorobutadiene	ND		ug/kg	830	120	1
Hexachlorocyclopentadiene	ND		ug/kg	2400	750	1
Hexachloroethane	ND		ug/kg	660	130	1
Isophorone	ND		ug/kg	750	110	1
Naphthalene	300	J	ug/kg	830	100	1
Nitrobenzene	ND		ug/kg	750	120	1
NDPA/DPA	ND		ug/kg	660	94.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	830	130	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	830	290	1
Butyl benzyl phthalate	ND		ug/kg	830	210	1
Di-n-butylphthalate	ND		ug/kg	830	160	1
Di-n-octylphthalate	ND		ug/kg	830	280	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-07

Date Collected: 01/03/19 14:05

Client ID: RB19_20-22

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	830	77.	1
Dimethyl phthalate	ND		ug/kg	830	170	1
Benzo(a)anthracene	200	J	ug/kg	500	93.	1
Benzo(a)pyrene	250	J	ug/kg	660	200	1
Benzo(b)fluoranthene	230	J	ug/kg	500	140	1
Benzo(k)fluoranthene	ND		ug/kg	500	130	1
Chrysene	190	J	ug/kg	500	86.	1
Acenaphthylene	ND		ug/kg	660	130	1
Anthracene	ND		ug/kg	500	160	1
Benzo(ghi)perylene	180	J	ug/kg	660	98.	1
Fluorene	ND		ug/kg	830	81.	1
Phenanthrene	170	J	ug/kg	500	100	1
Dibenzo(a,h)anthracene	ND		ug/kg	500	96.	1
Indeno(1,2,3-cd)pyrene	140	J	ug/kg	660	120	1
Pyrene	570		ug/kg	500	82.	1
Biphenyl	ND		ug/kg	1900	190	1
4-Chloroaniline	ND		ug/kg	830	150	1
2-Nitroaniline	ND		ug/kg	830	160	1
3-Nitroaniline	ND		ug/kg	830	160	1
4-Nitroaniline	ND		ug/kg	830	340	1
Dibenzofuran	ND		ug/kg	830	78.	1
2-Methylnaphthalene	ND		ug/kg	1000	100	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	830	87.	1
Acetophenone	ND		ug/kg	830	100	1
2,4,6-Trichlorophenol	ND		ug/kg	500	160	1
p-Chloro-m-cresol	ND		ug/kg	830	120	1
2-Chlorophenol	ND		ug/kg	830	98.	1
2,4-Dichlorophenol	ND		ug/kg	750	130	1
2,4-Dimethylphenol	ND		ug/kg	830	270	1
2-Nitrophenol	ND		ug/kg	1800	310	1
4-Nitrophenol	ND		ug/kg	1200	340	1
2,4-Dinitrophenol	ND		ug/kg	4000	390	1
4,6-Dinitro-o-cresol	ND		ug/kg	2200	400	1
Pentachlorophenol	ND		ug/kg	660	180	1
Phenol	ND		ug/kg	830	120	1
2-Methylphenol	ND		ug/kg	830	130	1
3-Methylphenol/4-Methylphenol	370	J	ug/kg	1200	130	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-07
 Client ID: RB19_20-22
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	830	160	1
Benzoic Acid	ND		ug/kg	2700	840	1
Benzyl Alcohol	ND		ug/kg	830	250	1
Carbazole	ND		ug/kg	830	81.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	67		25-120
Phenol-d6	70		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	64		30-120
2,4,6-Tribromophenol	69		10-136
4-Terphenyl-d14	51		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-08
 Client ID: RB19_24-25
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:10
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/06/19 00:26
 Analyst: SZ
 Percent Solids: 66%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 10:42

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	33	J	ug/kg	200	25.	1
1,2,4-Trichlorobenzene	ND		ug/kg	240	28.	1
Hexachlorobenzene	ND		ug/kg	150	28.	1
Bis(2-chloroethyl)ether	ND		ug/kg	220	33.	1
2-Chloronaphthalene	ND		ug/kg	240	24.	1
1,2-Dichlorobenzene	ND		ug/kg	240	44.	1
1,3-Dichlorobenzene	ND		ug/kg	240	42.	1
1,4-Dichlorobenzene	ND		ug/kg	240	43.	1
3,3'-Dichlorobenzidine	ND		ug/kg	240	65.	1
2,4-Dinitrotoluene	ND		ug/kg	240	49.	1
2,6-Dinitrotoluene	ND		ug/kg	240	42.	1
Fluoranthene	480		ug/kg	150	28.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	240	26.	1
4-Bromophenyl phenyl ether	ND		ug/kg	240	38.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	300	42.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	260	25.	1
Hexachlorobutadiene	ND		ug/kg	240	36.	1
Hexachlorocyclopentadiene	ND		ug/kg	700	220	1
Hexachloroethane	ND		ug/kg	200	40.	1
Isophorone	ND		ug/kg	220	32.	1
Naphthalene	240		ug/kg	240	30.	1
Nitrobenzene	ND		ug/kg	220	36.	1
NDPA/DPA	ND		ug/kg	200	28.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	240	38.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	240	85.	1
Butyl benzyl phthalate	ND		ug/kg	240	62.	1
Di-n-butylphthalate	ND		ug/kg	240	47.	1
Di-n-octylphthalate	ND		ug/kg	240	84.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-08

Date Collected: 01/03/19 14:10

Client ID: RB19_24-25

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	240	23.	1
Dimethyl phthalate	ND		ug/kg	240	52.	1
Benzo(a)anthracene	380		ug/kg	150	28.	1
Benzo(a)pyrene	580		ug/kg	200	60.	1
Benzo(b)fluoranthene	580		ug/kg	150	41.	1
Benzo(k)fluoranthene	180		ug/kg	150	39.	1
Chrysene	370		ug/kg	150	26.	1
Acenaphthylene	61	J	ug/kg	200	38.	1
Anthracene	130	J	ug/kg	150	48.	1
Benzo(ghi)perylene	370		ug/kg	200	29.	1
Fluorene	58	J	ug/kg	240	24.	1
Phenanthrene	270		ug/kg	150	30.	1
Dibenzo(a,h)anthracene	60	J	ug/kg	150	28.	1
Indeno(1,2,3-cd)pyrene	340		ug/kg	200	34.	1
Pyrene	540		ug/kg	150	24.	1
Biphenyl	ND		ug/kg	560	57.	1
4-Chloroaniline	ND		ug/kg	240	45.	1
2-Nitroaniline	ND		ug/kg	240	47.	1
3-Nitroaniline	ND		ug/kg	240	46.	1
4-Nitroaniline	ND		ug/kg	240	100	1
Dibenzofuran	33	J	ug/kg	240	23.	1
2-Methylnaphthalene	50	J	ug/kg	300	30.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	240	26.	1
Acetophenone	ND		ug/kg	240	30.	1
2,4,6-Trichlorophenol	ND		ug/kg	150	47.	1
p-Chloro-m-cresol	ND		ug/kg	240	37.	1
2-Chlorophenol	ND		ug/kg	240	29.	1
2,4-Dichlorophenol	ND		ug/kg	220	40.	1
2,4-Dimethylphenol	ND		ug/kg	240	81.	1
2-Nitrophenol	ND		ug/kg	530	92.	1
4-Nitrophenol	ND		ug/kg	340	100	1
2,4-Dinitrophenol	ND		ug/kg	1200	110	1
4,6-Dinitro-o-cresol	ND		ug/kg	640	120	1
Pentachlorophenol	ND		ug/kg	200	54.	1
Phenol	ND		ug/kg	240	37.	1
2-Methylphenol	ND		ug/kg	240	38.	1
3-Methylphenol/4-Methylphenol	190	J	ug/kg	350	38.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-08
 Client ID: RB19_24-25
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:10
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	240	47.	1
Benzoic Acid	ND		ug/kg	800	250	1
Benzyl Alcohol	ND		ug/kg	240	75.	1
Carbazole	ND		ug/kg	240	24.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		25-120
Phenol-d6	63		10-120
Nitrobenzene-d5	54		23-120
2-Fluorobiphenyl	57		30-120
2,4,6-Tribromophenol	67		10-136
4-Terphenyl-d14	49		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/05/19 11:26
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 01/04/19 10:42

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02,04-08 Batch: WG1194798-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	98	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	98	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 01/05/19 11:26
 Analyst: JG

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 10:42

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02,04-08 Batch: WG1194798-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	28.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	62.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 01/05/19 11:26
Analyst: JG

Extraction Method: EPA 3546
Extraction Date: 01/04/19 10:42

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02,04-08 Batch: WG1194798-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	76.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	530	160
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	64		25-120
Phenol-d6	67		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	75		10-136
4-Terphenyl-d14	67		18-120

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/10/19 08:14
Analyst: ALS

Extraction Method: EPA 3546
Extraction Date: 01/09/19 13:31

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,03 Batch: WG1196085-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	18.
Hexachlorobenzene	ND		ug/kg	97	18.
Bis(2-chloroethyl)ether	ND		ug/kg	140	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	28.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	32.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	97	18.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	17.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	190	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	170	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	460	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	140	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	140	24.
NDPA/DPA	ND		ug/kg	130	18.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	56.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	55.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/10/19 08:14
Analyst: ALS

Extraction Method: EPA 3546
Extraction Date: 01/09/19 13:31

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,03 Batch: WG1196085-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	97	18.
Benzo(a)pyrene	ND		ug/kg	130	39.
Benzo(b)fluoranthene	ND		ug/kg	97	27.
Benzo(k)fluoranthene	ND		ug/kg	97	26.
Chrysene	ND		ug/kg	97	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	97	31.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	97	20.
Dibenzo(a,h)anthracene	ND		ug/kg	97	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	22.
Pyrene	ND		ug/kg	97	16.
Biphenyl	ND		ug/kg	370	37.
4-Chloroaniline	ND		ug/kg	160	29.
2-Nitroaniline	ND		ug/kg	160	31.
3-Nitroaniline	ND		ug/kg	160	30.
4-Nitroaniline	ND		ug/kg	160	67.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	190	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	97	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	140	26.
2,4-Dimethylphenol	ND		ug/kg	160	53.
2-Nitrophenol	ND		ug/kg	350	61.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 01/10/19 08:14
Analyst: ALS

Extraction Method: EPA 3546
Extraction Date: 01/09/19 13:31

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01,03 Batch: WG1196085-1					
4-Nitrophenol	ND		ug/kg	230	66.
2,4-Dinitrophenol	ND		ug/kg	780	75.
4,6-Dinitro-o-cresol	ND		ug/kg	420	78.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	24.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	230	25.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	520	160
Benzyl Alcohol	ND		ug/kg	160	49.
Carbazole	ND		ug/kg	160	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	79		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	84		30-120
2,4,6-Tribromophenol	91		10-136
4-Terphenyl-d14	90		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-08 Batch: WG1194798-2 WG1194798-3								
Acenaphthene	64		66		31-137	3		50
1,2,4-Trichlorobenzene	78		73		38-107	7		50
Hexachlorobenzene	72		69		40-140	4		50
Bis(2-chloroethyl)ether	73		75		40-140	3		50
2-Chloronaphthalene	78		77		40-140	1		50
1,2-Dichlorobenzene	71		75		40-140	5		50
1,3-Dichlorobenzene	73		75		40-140	3		50
1,4-Dichlorobenzene	72		74		28-104	3		50
3,3'-Dichlorobenzidine	52		55		40-140	6		50
2,4-Dinitrotoluene	80		84		40-132	5		50
2,6-Dinitrotoluene	88		88		40-140	0		50
Fluoranthene	72		78		40-140	8		50
4-Chlorophenyl phenyl ether	71		64		40-140	10		50
4-Bromophenyl phenyl ether	70		70		40-140	0		50
Bis(2-chloroisopropyl)ether	67		65		40-140	3		50
Bis(2-chloroethoxy)methane	71		70		40-117	1		50
Hexachlorobutadiene	72		72		40-140	0		50
Hexachlorocyclopentadiene	76		77		40-140	1		50
Hexachloroethane	74		71		40-140	4		50
Isophorone	75		70		40-140	7		50
Naphthalene	71		75		40-140	5		50
Nitrobenzene	78		74		40-140	5		50
NDPA/DPA	71		75		36-157	5		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-08 Batch: WG1194798-2 WG1194798-3								
n-Nitrosodi-n-propylamine	71		70		32-121	1		50
Bis(2-ethylhexyl)phthalate	89		92		40-140	3		50
Butyl benzyl phthalate	86		87		40-140	1		50
Di-n-butylphthalate	86		76		40-140	12		50
Di-n-octylphthalate	81		83		40-140	2		50
Diethyl phthalate	77		68		40-140	12		50
Dimethyl phthalate	76		79		40-140	4		50
Benzo(a)anthracene	72		73		40-140	1		50
Benzo(a)pyrene	82		71		40-140	14		50
Benzo(b)fluoranthene	80		71		40-140	12		50
Benzo(k)fluoranthene	80		70		40-140	13		50
Chrysene	74		75		40-140	1		50
Acenaphthylene	76		80		40-140	5		50
Anthracene	77		79		40-140	3		50
Benzo(ghi)perylene	75		77		40-140	3		50
Fluorene	74		66		40-140	11		50
Phenanthrene	75		76		40-140	1		50
Dibenzo(a,h)anthracene	73		77		40-140	5		50
Indeno(1,2,3-cd)pyrene	75		68		40-140	10		50
Pyrene	71		76		35-142	7		50
Biphenyl	80		77		54-104	4		50
4-Chloroaniline	57		60		40-140	5		50
2-Nitroaniline	93		94		47-134	1		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-08 Batch: WG1194798-2 WG1194798-3								
3-Nitroaniline	55		57		26-129	4		50
4-Nitroaniline	76		65		41-125	16		50
Dibenzofuran	69		71		40-140	3		50
2-Methylnaphthalene	77		73		40-140	5		50
1,2,4,5-Tetrachlorobenzene	81		82		40-117	1		50
Acetophenone	77		75		14-144	3		50
2,4,6-Trichlorophenol	89		87		30-130	2		50
p-Chloro-m-cresol	84		83		26-103	1		50
2-Chlorophenol	84		84		25-102	0		50
2,4-Dichlorophenol	88		87		30-130	1		50
2,4-Dimethylphenol	87		81		30-130	7		50
2-Nitrophenol	97		93		30-130	4		50
4-Nitrophenol	74		78		11-114	5		50
2,4-Dinitrophenol	87		90		4-130	3		50
4,6-Dinitro-o-cresol	94		81		10-130	15		50
Pentachlorophenol	82		84		17-109	2		50
Phenol	75		76		26-90	1		50
2-Methylphenol	81		78		30-130.	4		50
3-Methylphenol/4-Methylphenol	86		85		30-130	1		50
2,4,5-Trichlorophenol	86		85		30-130	1		50
Benzoic Acid	60		72		10-110	18		50
Benzyl Alcohol	75		78		40-140	4		50
Carbazole	72		78		54-128	8		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900324

Report Date: 01/10/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-08 Batch: WG1194798-2 WG1194798-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	72		84		25-120
Phenol-d6	80		81		10-120
Nitrobenzene-d5	80		76		23-120
2-Fluorobiphenyl	75		74		30-120
2,4,6-Tribromophenol	77		79		10-136
4-Terphenyl-d14	66		65		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1196085-2 WG1196085-3								
Acenaphthene	86		81		31-137	6		50
1,2,4-Trichlorobenzene	82		76		38-107	8		50
Hexachlorobenzene	91		83		40-140	9		50
Bis(2-chloroethyl)ether	67		62		40-140	8		50
2-Chloronaphthalene	89		82		40-140	8		50
1,2-Dichlorobenzene	76		72		40-140	5		50
1,3-Dichlorobenzene	77		72		40-140	7		50
1,4-Dichlorobenzene	77		73		28-104	5		50
3,3'-Dichlorobenzidine	64		61		40-140	5		50
2,4-Dinitrotoluene	97		91		40-132	6		50
2,6-Dinitrotoluene	95		89		40-140	7		50
Fluoranthene	91		87		40-140	4		50
4-Chlorophenyl phenyl ether	90		84		40-140	7		50
4-Bromophenyl phenyl ether	91		84		40-140	8		50
Bis(2-chloroisopropyl)ether	76		69		40-140	10		50
Bis(2-chloroethoxy)methane	74		69		40-117	7		50
Hexachlorobutadiene	84		79		40-140	6		50
Hexachlorocyclopentadiene	83		75		40-140	10		50
Hexachloroethane	75		69		40-140	8		50
Isophorone	75		69		40-140	8		50
Naphthalene	80		75		40-140	6		50
Nitrobenzene	74		68		40-140	8		50
NDPA/DPA	91		86		36-157	6		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1196085-2 WG1196085-3								
n-Nitrosodi-n-propylamine	75		69		32-121	8		50
Bis(2-ethylhexyl)phthalate	96		90		40-140	6		50
Butyl benzyl phthalate	95		91		40-140	4		50
Di-n-butylphthalate	96		91		40-140	5		50
Di-n-octylphthalate	98		93		40-140	5		50
Diethyl phthalate	90		84		40-140	7		50
Dimethyl phthalate	90		85		40-140	6		50
Benzo(a)anthracene	89		84		40-140	6		50
Benzo(a)pyrene	92		87		40-140	6		50
Benzo(b)fluoranthene	91		84		40-140	8		50
Benzo(k)fluoranthene	86		84		40-140	2		50
Chrysene	85		81		40-140	5		50
Acenaphthylene	90		84		40-140	7		50
Anthracene	90		86		40-140	5		50
Benzo(ghi)perylene	87		82		40-140	6		50
Fluorene	88		82		40-140	7		50
Phenanthrene	86		83		40-140	4		50
Dibenzo(a,h)anthracene	88		83		40-140	6		50
Indeno(1,2,3-cd)pyrene	92		86		40-140	7		50
Pyrene	90		87		35-142	3		50
Biphenyl	91		86		54-104	6		50
4-Chloroaniline	45		52		40-140	14		50
2-Nitroaniline	101		93		47-134	8		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1196085-2 WG1196085-3								
3-Nitroaniline	65		64		26-129	2		50
4-Nitroaniline	90		85		41-125	6		50
Dibenzofuran	86		80		40-140	7		50
2-Methylnaphthalene	87		81		40-140	7		50
1,2,4,5-Tetrachlorobenzene	91		85		40-117	7		50
Acetophenone	80		74		14-144	8		50
2,4,6-Trichlorophenol	101		91		30-130	10		50
p-Chloro-m-cresol	90		84		26-103	7		50
2-Chlorophenol	87		81		25-102	7		50
2,4-Dichlorophenol	95		88		30-130	8		50
2,4-Dimethylphenol	86		82		30-130	5		50
2-Nitrophenol	94		86		30-130	9		50
4-Nitrophenol	93		92		11-114	1		50
2,4-Dinitrophenol	80		74		4-130	8		50
4,6-Dinitro-o-cresol	94		85		10-130	10		50
Pentachlorophenol	88		83		17-109	6		50
Phenol	77		73		26-90	5		50
2-Methylphenol	84		79		30-130.	6		50
3-Methylphenol/4-Methylphenol	83		83		30-130	0		50
2,4,5-Trichlorophenol	102		95		30-130	7		50
Benzoic Acid	53		50		10-110	6		50
Benzyl Alcohol	79		72		40-140	9		50
Carbazole	91		88		54-128	3		50

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01,03 Batch: WG1196085-2 WG1196085-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	82		78		25-120
Phenol-d6	84		78		10-120
Nitrobenzene-d5	77		72		23-120
2-Fluorobiphenyl	92		85		30-120
2,4,6-Tribromophenol	96		89		10-136
4-Terphenyl-d14	92		88		18-120

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-08 QC Batch ID: WG1194798-4 WG1194798-5 QC Sample: L1900324-02												
Client ID: RB21_2-4												
Acenaphthene	ND	1370	840	61		850	62		31-137	1		50
1,2,4-Trichlorobenzene	ND	1370	850	62		940	69		38-107	10		50
Hexachlorobenzene	ND	1370	840	61		850	62		40-140	1		50
Bis(2-chloroethyl)ether	ND	1370	800	59		900	66		40-140	12		50
2-Chloronaphthalene	ND	1370	840	61		980	72		40-140	15		50
1,2-Dichlorobenzene	ND	1370	890	65		920	67		40-140	3		50
1,3-Dichlorobenzene	ND	1370	780	57		920	67		40-140	16		50
1,4-Dichlorobenzene	ND	1370	880	64		910	67		28-104	3		50
3,3'-Dichlorobenzidine	ND	1370	750	55		860	63		40-140	14		50
2,4-Dinitrotoluene	ND	1370	980	72		920	67		40-132	6		50
2,6-Dinitrotoluene	ND	1370	900	66		980	72		40-140	9		50
Fluoranthene	280	1370	990	52		1100	60		40-140	11		50
4-Chlorophenyl phenyl ether	ND	1370	890	65		840	62		40-140	6		50
4-Bromophenyl phenyl ether	ND	1370	830	61		850	62		40-140	2		50
Bis(2-chloroisopropyl)ether	ND	1370	770	56		830	61		40-140	8		50
Bis(2-chloroethoxy)methane	ND	1370	830	61		900	66		40-117	8		50
Hexachlorobutadiene	ND	1370	840	61		880	64		40-140	5		50
Hexachlorocyclopentadiene	ND	1370	280J	20	Q	300J	22	Q	40-140	7		50
Hexachloroethane	ND	1370	770	56		830	61		40-140	8		50
Isophorone	ND	1370	820	60		890	65		40-140	8		50
Naphthalene	23J	1370	930	68		960	70		40-140	3		50
Nitrobenzene	ND	1370	910	67		920	67		40-140	1		50
NDPA/DPA	ND	1370	820	60		870	64		36-157	6		50

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-08 QC Batch ID: WG1194798-4 WG1194798-5 QC Sample: L1900324-02 Client ID: RB21_2-4												
n-Nitrosodi-n-propylamine	ND	1370	820	60		870	64		32-121	6		50
Bis(2-ethylhexyl)phthalate	ND	1370	1000	73		1100	81		40-140	10		50
Butyl benzyl phthalate	ND	1370	810	59		1000	73		40-140	21		50
Di-n-butylphthalate	ND	1370	990	72		1000	73		40-140	1		50
Di-n-octylphthalate	ND	1370	1300	95		1100	81		40-140	17		50
Diethyl phthalate	ND	1370	960	70		900	66		40-140	6		50
Dimethyl phthalate	ND	1370	810	59		960	70		40-140	17		50
Benzo(a)anthracene	120	1370	940	60		1000	64		40-140	6		50
Benzo(a)pyrene	120J	1370	1200	88		1000	73		40-140	18		50
Benzo(b)fluoranthene	180	1370	1200	75		1000	60		40-140	18		50
Benzo(k)fluoranthene	46J	1370	1000	73		980	72		40-140	2		50
Chrysene	140	1370	920	57		980	62		40-140	6		50
Acenaphthylene	ND	1370	850	62		1000	73		40-140	16		50
Anthracene	ND	1370	980	72		1000	73		40-140	2		50
Benzo(ghi)perylene	80J	1370	910	67		890	65		40-140	2		50
Fluorene	ND	1370	980	72		900	66		40-140	9		50
Phenanthrene	130	1370	1000	64		1000	64		40-140	0		50
Dibenzo(a,h)anthracene	ND	1370	840	61		810	59		40-140	4		50
Indeno(1,2,3-cd)pyrene	85J	1370	920	67		910	67		40-140	1		50
Pyrene	290	1370	940	48		1100	59		35-142	16		50
Biphenyl	ND	1370	860	63		1000	73		54-104	15		50
4-Chloroaniline	ND	1370	700	51		790	58		40-140	12		50
2-Nitroaniline	ND	1370	1000	73		1200	88		47-134	18		50

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-08 QC Batch ID: WG1194798-4 WG1194798-5 QC Sample: L1900324-02												
Client ID: RB21_2-4												
3-Nitroaniline	ND	1370	830	61		880	64		26-129	6		50
4-Nitroaniline	ND	1370	930	68		900	66		41-125	3		50
Dibenzofuran	ND	1370	890	65		910	67		40-140	2		50
2-Methylnaphthalene	ND	1370	800	59		940	69		40-140	16		50
1,2,4,5-Tetrachlorobenzene	ND	1370	870	64		1000	73		40-117	14		50
Acetophenone	ND	1370	910	67		960	70		14-144	5		50
2,4,6-Trichlorophenol	ND	1370	940	69		1000	73		30-130	6		50
p-Chloro-m-cresol	ND	1370	830	61		1000	73		26-103	19		50
2-Chlorophenol	ND	1370	900	66		1000	73		25-102	11		50
2,4-Dichlorophenol	ND	1370	980	72		1100	81		30-130	12		50
2,4-Dimethylphenol	ND	1370	880	64		950	70		30-130	8		50
2-Nitrophenol	ND	1370	980	72		970	71		30-130	1		50
4-Nitrophenol	ND	1370	920	67		860	63		11-114	7		50
2,4-Dinitrophenol	ND	1370	160J	12		160J	12		4-130	0		50
4,6-Dinitro-o-cresol	ND	1370	210J	15		190J	14		10-130	10		50
Pentachlorophenol	ND	1370	1100	80		880	64		17-109	22		50
Phenol	ND	1370	830	61		950	70		26-90	13		50
2-Methylphenol	ND	1370	920	67		970	71		30-130.	5		50
3-Methylphenol/4-Methylphenol	ND	1370	980	72		1000	73		30-130	2		50
2,4,5-Trichlorophenol	ND	1370	910	67		1100	81		30-130	19		50
Benzoic Acid	ND	1370	ND	0	Q	ND	0	Q	10-110	NC		50
Benzyl Alcohol	ND	1370	930	68		970	71		40-140	4		50
Carbazole	ND	1370	980	72		1000	73		54-128	2		50

Matrix Spike Analysis**Batch Quality Control****Project Name:** GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02,04-08 QC Batch ID: WG1194798-4 WG1194798-5 QC Sample: L1900324-02
Client ID: RB21_2-4

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
2,4,6-Tribromophenol	69		72		10-136
2-Fluorobiphenyl	59		70		30-120
2-Fluorophenol	58		74		25-120
4-Terphenyl-d14	49		60		18-120
Nitrobenzene-d5	69		71		23-120
Phenol-d6	63		74		10-120

PCBS

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-01
 Client ID: RB21_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:30
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/07/19 06:00
 Analyst: WR
 Percent Solids: 92%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 13:49
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/05/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.0	3.10	1	A
Aroclor 1221	ND		ug/kg	35.0	3.50	1	A
Aroclor 1232	ND		ug/kg	35.0	7.41	1	A
Aroclor 1242	ND		ug/kg	35.0	4.71	1	A
Aroclor 1248	ND		ug/kg	35.0	5.24	1	A
Aroclor 1254	ND		ug/kg	35.0	3.82	1	A
Aroclor 1260	ND		ug/kg	35.0	6.46	1	A
Aroclor 1262	ND		ug/kg	35.0	4.44	1	A
Aroclor 1268	ND		ug/kg	35.0	3.62	1	A
PCBs, Total	ND		ug/kg	35.0	3.10	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	50		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	46		30-150	B
Decachlorobiphenyl	33		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-02
 Client ID: RB21_2-4
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:35
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/07/19 05:23
 Analyst: WR
 Percent Solids: 95%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 13:49
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/05/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.2	2.95	1	A
Aroclor 1221	ND		ug/kg	33.2	3.33	1	A
Aroclor 1232	ND		ug/kg	33.2	7.04	1	A
Aroclor 1242	ND		ug/kg	33.2	4.48	1	A
Aroclor 1248	ND		ug/kg	33.2	4.98	1	A
Aroclor 1254	ND		ug/kg	33.2	3.64	1	A
Aroclor 1260	ND		ug/kg	33.2	6.14	1	A
Aroclor 1262	ND		ug/kg	33.2	4.22	1	A
Aroclor 1268	ND		ug/kg	33.2	3.44	1	A
PCBs, Total	ND		ug/kg	33.2	2.95	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	48		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	40		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-03
 Client ID: RB21_18-20
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:40
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/07/19 06:12
 Analyst: WR
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 13:49
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/05/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.1	3.03	1	A
Aroclor 1221	ND		ug/kg	34.1	3.42	1	A
Aroclor 1232	ND		ug/kg	34.1	7.24	1	A
Aroclor 1242	ND		ug/kg	34.1	4.60	1	A
Aroclor 1248	ND		ug/kg	34.1	5.12	1	A
Aroclor 1254	ND		ug/kg	34.1	3.74	1	A
Aroclor 1260	ND		ug/kg	34.1	6.31	1	A
Aroclor 1262	ND		ug/kg	34.1	4.34	1	A
Aroclor 1268	ND		ug/kg	34.1	3.54	1	A
PCBs, Total	ND		ug/kg	34.1	3.03	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	60		30-150	A
2,4,5,6-Tetrachloro-m-xylene	55		30-150	B
Decachlorobiphenyl	40		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-04
 Client ID: RB22_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 13:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/07/19 06:24
 Analyst: WR
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 13:49
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/05/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.9	3.10	1	A
Aroclor 1221	ND		ug/kg	34.9	3.49	1	A
Aroclor 1232	ND		ug/kg	34.9	7.39	1	A
Aroclor 1242	ND		ug/kg	34.9	4.70	1	A
Aroclor 1248	ND		ug/kg	34.9	5.23	1	A
Aroclor 1254	ND		ug/kg	34.9	3.82	1	A
Aroclor 1260	ND		ug/kg	34.9	6.44	1	A
Aroclor 1262	ND		ug/kg	34.9	4.43	1	A
Aroclor 1268	ND		ug/kg	34.9	3.61	1	A
PCBs, Total	ND		ug/kg	34.9	3.10	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	79		30-150	A
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	53		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-05
 Client ID: RB22_3-5
 Sample Location: BRONX, NY

Date Collected: 01/03/19 13:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/07/19 06:37
 Analyst: WR
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 13:49
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/05/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.3	3.14	1	A
Aroclor 1221	ND		ug/kg	35.3	3.54	1	A
Aroclor 1232	ND		ug/kg	35.3	7.49	1	A
Aroclor 1242	ND		ug/kg	35.3	4.76	1	A
Aroclor 1248	ND		ug/kg	35.3	5.30	1	A
Aroclor 1254	ND		ug/kg	35.3	3.87	1	A
Aroclor 1260	ND		ug/kg	35.3	6.53	1	A
Aroclor 1262	ND		ug/kg	35.3	4.49	1	A
Aroclor 1268	ND		ug/kg	35.3	3.66	1	A
PCBs, Total	ND		ug/kg	35.3	3.14	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		30-150	B
Decachlorobiphenyl	49		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-06
 Client ID: RB19_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/07/19 06:49
 Analyst: WR
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 13:49
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/05/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.8	3.18	1	A
Aroclor 1221	ND		ug/kg	35.8	3.59	1	A
Aroclor 1232	ND		ug/kg	35.8	7.59	1	A
Aroclor 1242	ND		ug/kg	35.8	4.83	1	A
Aroclor 1248	ND		ug/kg	35.8	5.37	1	A
Aroclor 1254	ND		ug/kg	35.8	3.92	1	A
Aroclor 1260	ND		ug/kg	35.8	6.62	1	A
Aroclor 1262	ND		ug/kg	35.8	4.55	1	A
Aroclor 1268	ND		ug/kg	35.8	3.71	1	A
PCBs, Total	ND		ug/kg	35.8	3.18	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	51		30-150	B
Decachlorobiphenyl	35		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-07
 Client ID: RB19_20-22
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/07/19 07:02
 Analyst: WR
 Percent Solids: 57%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 13:49
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/05/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	146	13.0	1	A
Aroclor 1221	ND		ug/kg	146	14.6	1	A
Aroclor 1232	ND		ug/kg	146	31.0	1	A
Aroclor 1242	ND		ug/kg	146	19.7	1	A
Aroclor 1248	ND		ug/kg	146	21.9	1	A
Aroclor 1254	ND		ug/kg	146	16.0	1	A
Aroclor 1260	ND		ug/kg	146	27.0	1	A
Aroclor 1262	ND		ug/kg	146	18.6	1	A
Aroclor 1268	ND		ug/kg	146	15.1	1	A
PCBs, Total	ND		ug/kg	146	13.0	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	45		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-08
 Client ID: RB19_24-25
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:10
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/07/19 07:14
 Analyst: WR
 Percent Solids: 66%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 13:49
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/05/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	48.9	4.34	1	A
Aroclor 1221	ND		ug/kg	48.9	4.90	1	A
Aroclor 1232	ND		ug/kg	48.9	10.4	1	A
Aroclor 1242	ND		ug/kg	48.9	6.59	1	A
Aroclor 1248	ND		ug/kg	48.9	7.33	1	A
Aroclor 1254	14.6	J	ug/kg	48.9	5.35	1	A
Aroclor 1260	ND		ug/kg	48.9	9.03	1	A
Aroclor 1262	ND		ug/kg	48.9	6.21	1	A
Aroclor 1268	ND		ug/kg	48.9	5.06	1	A
PCBs, Total	14.6	J	ug/kg	48.9	4.34	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	45		30-150	A
Decachlorobiphenyl	42		30-150	A
2,4,5,6-Tetrachloro-m-xylene	42		30-150	B
Decachlorobiphenyl	30		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8082A
 Analytical Date: 01/06/19 20:27
 Analyst: HT

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 13:49
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/05/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-08 Batch: WG1194865-1						
Aroclor 1016	ND		ug/kg	32.2	2.86	A
Aroclor 1221	ND		ug/kg	32.2	3.22	A
Aroclor 1232	ND		ug/kg	32.2	6.82	A
Aroclor 1242	ND		ug/kg	32.2	4.33	A
Aroclor 1248	ND		ug/kg	32.2	4.82	A
Aroclor 1254	ND		ug/kg	32.2	3.52	A
Aroclor 1260	ND		ug/kg	32.2	5.94	A
Aroclor 1262	ND		ug/kg	32.2	4.08	A
Aroclor 1268	ND		ug/kg	32.2	3.33	A
PCBs, Total	ND		ug/kg	32.2	2.86	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	71		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG1194865-2 WG1194865-3									
Aroclor 1016	78		70		40-140	11		50	A
Aroclor 1260	65		62		40-140	5		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		60		30-150	A
Decachlorobiphenyl	58		56		30-150	A
2,4,5,6-Tetrachloro-m-xylene	71		64		30-150	B
Decachlorobiphenyl	71		68		30-150	B

Matrix Spike Analysis**Batch Quality Control****Project Name:** GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1194865-4 WG1194865-5 QC Sample: L1900324-02 Client ID: RB21_2-4													
Aroclor 1016	ND	207	158	76		169	82		40-140	7		50	A
Aroclor 1260	ND	207	147	71		157	76		40-140	7		50	A

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
2,4,5,6-Tetrachloro-m-xylene	63		66		30-150	A
Decachlorobiphenyl	53		58		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		64		30-150	B
Decachlorobiphenyl	42		45		30-150	B

PESTICIDES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-01
 Client ID: RB21_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:30
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/06/19 16:17
 Analyst: BM
 Percent Solids: 92%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 12:07
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.68	0.328	1	A
Lindane	ND		ug/kg	0.699	0.312	1	A
Alpha-BHC	ND		ug/kg	0.699	0.198	1	A
Beta-BHC	ND		ug/kg	1.68	0.636	1	A
Heptachlor	ND		ug/kg	0.839	0.376	1	A
Aldrin	ND		ug/kg	1.68	0.591	1	A
Heptachlor epoxide	ND		ug/kg	3.14	0.944	1	A
Endrin	ND		ug/kg	0.699	0.286	1	A
Endrin aldehyde	ND		ug/kg	2.10	0.734	1	A
Endrin ketone	ND		ug/kg	1.68	0.432	1	A
Dieldrin	ND		ug/kg	1.05	0.524	1	A
4,4'-DDE	ND		ug/kg	1.68	0.388	1	A
4,4'-DDD	ND		ug/kg	1.68	0.598	1	A
4,4'-DDT	ND		ug/kg	3.14	1.35	1	A
Endosulfan I	ND		ug/kg	1.68	0.396	1	A
Endosulfan II	3.79	IP	ug/kg	1.68	0.560	1	A
Endosulfan sulfate	ND		ug/kg	0.699	0.333	1	A
Methoxychlor	ND		ug/kg	3.14	0.978	1	A
Toxaphene	ND		ug/kg	31.4	8.81	1	A
cis-Chlordane	ND		ug/kg	2.10	0.584	1	A
trans-Chlordane	ND		ug/kg	2.10	0.554	1	A
Chlordane	ND		ug/kg	13.6	5.56	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-01

Date Collected: 01/03/19 11:30

Client ID: RB21_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	103		30-150	B
Decachlorobiphenyl	97		30-150	B
2,4,5,6-Tetrachloro-m-xylene	98		30-150	A
Decachlorobiphenyl	136		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-01
 Client ID: RB21_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:30
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/06/19 22:18
 Analyst: \DGM
 Percent Solids: 92%
 Methylation Date: 01/05/19 20:45

Extraction Method: EPA 8151A
 Extraction Date: 01/05/19 00:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	179	11.3	1	A
2,4,5-T	ND		ug/kg	179	5.55	1	A
2,4,5-TP (Silvex)	ND		ug/kg	179	4.76	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	84		30-150	A
DCAA	77		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-02
 Client ID: RB21_2-4
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:35
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/05/19 15:20
 Analyst: KEG
 Percent Solids: 95%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 12:07
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.61	0.315	1	A
Lindane	ND		ug/kg	0.670	0.299	1	A
Alpha-BHC	ND		ug/kg	0.670	0.190	1	A
Beta-BHC	ND		ug/kg	1.61	0.609	1	A
Heptachlor	ND		ug/kg	0.804	0.360	1	A
Aldrin	ND		ug/kg	1.61	0.566	1	A
Heptachlor epoxide	ND		ug/kg	3.01	0.904	1	A
Endrin	ND		ug/kg	0.670	0.274	1	A
Endrin aldehyde	ND		ug/kg	2.01	0.703	1	A
Endrin ketone	ND		ug/kg	1.61	0.414	1	A
Dieldrin	ND		ug/kg	1.00	0.502	1	A
4,4'-DDE	ND		ug/kg	1.61	0.372	1	A
4,4'-DDD	ND		ug/kg	1.61	0.573	1	A
4,4'-DDT	ND		ug/kg	3.01	1.29	1	A
Endosulfan I	ND		ug/kg	1.61	0.380	1	A
Endosulfan II	ND		ug/kg	1.61	0.537	1	A
Endosulfan sulfate	ND		ug/kg	0.670	0.319	1	A
Methoxychlor	ND		ug/kg	3.01	0.937	1	A
Toxaphene	ND		ug/kg	30.1	8.44	1	A
cis-Chlordane	ND		ug/kg	2.01	0.560	1	A
trans-Chlordane	ND		ug/kg	2.01	0.530	1	A
Chlordane	ND		ug/kg	13.0	5.32	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-02

Date Collected: 01/03/19 11:35

Client ID: RB21_2-4

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	B
Decachlorobiphenyl	70		30-150	B
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	77		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-02
 Client ID: RB21_2-4
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:35
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/06/19 22:37
 Analyst: \DGM
 Percent Solids: 95%
 Methylation Date: 01/05/19 20:45

Extraction Method: EPA 8151A
 Extraction Date: 01/05/19 00:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	174	11.0	1	A
2,4,5-T	ND		ug/kg	174	5.39	1	A
2,4,5-TP (Silvex)	ND		ug/kg	174	4.62	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	84		30-150	A
DCAA	70		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-03
 Client ID: RB21_18-20
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:40
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/06/19 16:30
 Analyst: BM
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 12:07
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.62	0.318	1	A
Lindane	ND		ug/kg	0.676	0.302	1	A
Alpha-BHC	ND		ug/kg	0.676	0.192	1	A
Beta-BHC	ND		ug/kg	1.62	0.615	1	A
Heptachlor	ND		ug/kg	0.812	0.364	1	A
Aldrin	ND		ug/kg	1.62	0.571	1	A
Heptachlor epoxide	ND		ug/kg	3.04	0.913	1	A
Endrin	ND		ug/kg	0.676	0.277	1	A
Endrin aldehyde	ND		ug/kg	2.03	0.710	1	A
Endrin ketone	ND		ug/kg	1.62	0.418	1	A
Dieldrin	ND		ug/kg	1.01	0.507	1	A
4,4'-DDE	ND		ug/kg	1.62	0.375	1	A
4,4'-DDD	ND		ug/kg	1.62	0.579	1	A
4,4'-DDT	ND		ug/kg	3.04	1.30	1	A
Endosulfan I	ND		ug/kg	1.62	0.383	1	A
Endosulfan II	0.810	JIP	ug/kg	1.62	0.542	1	A
Endosulfan sulfate	ND		ug/kg	0.676	0.322	1	A
Methoxychlor	ND		ug/kg	3.04	0.947	1	A
Toxaphene	ND		ug/kg	30.4	8.52	1	A
cis-Chlordane	ND		ug/kg	2.03	0.565	1	A
trans-Chlordane	ND		ug/kg	2.03	0.536	1	A
Chlordane	ND		ug/kg	13.2	5.38	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-03
 Client ID: RB21_18-20
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:40
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	112		30-150	B
Decachlorobiphenyl	92		30-150	B
2,4,5,6-Tetrachloro-m-xylene	104		30-150	A
Decachlorobiphenyl	78		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-03
 Client ID: RB21_18-20
 Sample Location: BRONX, NY

Date Collected: 01/03/19 11:40
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/06/19 22:56
 Analyst: \DGM
 Percent Solids: 96%
 Methylation Date: 01/05/19 20:45

Extraction Method: EPA 8151A
 Extraction Date: 01/05/19 00:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	173	10.9	1	A
2,4,5-T	ND		ug/kg	173	5.35	1	A
2,4,5-TP (Silvex)	ND		ug/kg	173	4.59	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	85		30-150	A
DCAA	79		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-04
 Client ID: RB22_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 13:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/06/19 16:42
 Analyst: BM
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 12:07
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.77	0.346	1	A
Lindane	ND		ug/kg	0.737	0.330	1	A
Alpha-BHC	ND		ug/kg	0.737	0.209	1	A
Beta-BHC	ND		ug/kg	1.77	0.671	1	A
Heptachlor	ND		ug/kg	0.885	0.397	1	A
Aldrin	ND		ug/kg	1.77	0.623	1	A
Heptachlor epoxide	ND		ug/kg	3.32	0.995	1	A
Endrin	ND		ug/kg	0.737	0.302	1	A
Endrin aldehyde	ND		ug/kg	2.21	0.774	1	A
Endrin ketone	ND		ug/kg	1.77	0.456	1	A
Dieldrin	ND		ug/kg	1.10	0.553	1	A
4,4'-DDE	ND		ug/kg	1.77	0.409	1	A
4,4'-DDD	ND		ug/kg	1.77	0.631	1	A
4,4'-DDT	ND		ug/kg	3.32	1.42	1	A
Endosulfan I	ND		ug/kg	1.77	0.418	1	A
Endosulfan II	ND	IP	ug/kg	1.77	0.591	1	A
Endosulfan sulfate	ND		ug/kg	0.737	0.351	1	A
Methoxychlor	ND		ug/kg	3.32	1.03	1	A
Toxaphene	ND		ug/kg	33.2	9.29	1	A
cis-Chlordane	ND		ug/kg	2.21	0.616	1	A
trans-Chlordane	ND		ug/kg	2.21	0.584	1	A
Chlordane	ND		ug/kg	14.4	5.86	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-04

Date Collected: 01/03/19 13:00

Client ID: RB22_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	105		30-150	B
Decachlorobiphenyl	90		30-150	B
2,4,5,6-Tetrachloro-m-xylene	91		30-150	A
Decachlorobiphenyl	92		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-04
 Client ID: RB22_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 13:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/06/19 23:14
 Analyst: \DGM
 Percent Solids: 90%
 Methylation Date: 01/05/19 20:45

Extraction Method: EPA 8151A
 Extraction Date: 01/05/19 00:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	184	11.6	1	A
2,4,5-T	ND		ug/kg	184	5.70	1	A
2,4,5-TP (Silvex)	ND		ug/kg	184	4.89	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	92		30-150	A
DCAA	77		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-05
 Client ID: RB22_3-5
 Sample Location: BRONX, NY

Date Collected: 01/03/19 13:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/06/19 16:55
 Analyst: BM
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 12:07
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.77	0.346	1	A
Lindane	ND		ug/kg	0.737	0.329	1	A
Alpha-BHC	ND		ug/kg	0.737	0.209	1	A
Beta-BHC	ND		ug/kg	1.77	0.670	1	A
Heptachlor	ND		ug/kg	0.884	0.396	1	A
Aldrin	ND		ug/kg	1.77	0.623	1	A
Heptachlor epoxide	ND		ug/kg	3.32	0.995	1	A
Endrin	ND		ug/kg	0.737	0.302	1	A
Endrin aldehyde	ND		ug/kg	2.21	0.774	1	A
Endrin ketone	ND		ug/kg	1.77	0.455	1	A
Dieldrin	ND		ug/kg	1.10	0.553	1	A
4,4'-DDE	0.619	JIP	ug/kg	1.77	0.409	1	A
4,4'-DDD	ND		ug/kg	1.77	0.631	1	A
4,4'-DDT	ND		ug/kg	3.32	1.42	1	A
Endosulfan I	ND		ug/kg	1.77	0.418	1	A
Endosulfan II	ND		ug/kg	1.77	0.591	1	A
Endosulfan sulfate	ND		ug/kg	0.737	0.351	1	A
Methoxychlor	ND		ug/kg	3.32	1.03	1	A
Toxaphene	ND		ug/kg	33.2	9.28	1	A
cis-Chlordane	ND		ug/kg	2.21	0.616	1	A
trans-Chlordane	ND		ug/kg	2.21	0.584	1	A
Chlordane	ND		ug/kg	14.4	5.86	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-05

Date Collected: 01/03/19 13:05

Client ID: RB22_3-5

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	B
Decachlorobiphenyl	84		30-150	B
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	70		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-05
 Client ID: RB22_3-5
 Sample Location: BRONX, NY

Date Collected: 01/03/19 13:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/06/19 23:33
 Analyst: \DGM
 Percent Solids: 90%
 Methylation Date: 01/05/19 20:45

Extraction Method: EPA 8151A
 Extraction Date: 01/05/19 00:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	185	11.6	1	A
2,4,5-T	ND		ug/kg	185	5.72	1	A
2,4,5-TP (Silvex)	ND		ug/kg	185	4.91	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	92		30-150	A
DCAA	80		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-06
 Client ID: RB19_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/06/19 17:07
 Analyst: BM
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 12:07
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.71	0.334	1	A
Lindane	ND		ug/kg	0.711	0.318	1	A
Alpha-BHC	ND		ug/kg	0.711	0.202	1	A
Beta-BHC	ND		ug/kg	1.71	0.647	1	A
Heptachlor	ND		ug/kg	0.854	0.383	1	A
Aldrin	ND		ug/kg	1.71	0.601	1	A
Heptachlor epoxide	ND		ug/kg	3.20	0.960	1	A
Endrin	ND		ug/kg	0.711	0.292	1	A
Endrin aldehyde	ND		ug/kg	2.13	0.747	1	A
Endrin ketone	ND		ug/kg	1.71	0.440	1	A
Dieldrin	ND		ug/kg	1.07	0.533	1	A
4,4'-DDE	ND		ug/kg	1.71	0.395	1	A
4,4'-DDD	ND		ug/kg	1.71	0.609	1	A
4,4'-DDT	ND		ug/kg	3.20	1.37	1	A
Endosulfan I	ND		ug/kg	1.71	0.403	1	A
Endosulfan II	ND	IP	ug/kg	1.71	0.570	1	A
Endosulfan sulfate	ND		ug/kg	0.711	0.338	1	A
Methoxychlor	ND		ug/kg	3.20	0.996	1	A
Toxaphene	ND		ug/kg	32.0	8.96	1	A
cis-Chlordane	ND		ug/kg	2.13	0.595	1	A
trans-Chlordane	ND		ug/kg	2.13	0.563	1	A
Chlordane	ND		ug/kg	13.9	5.65	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-06

Date Collected: 01/03/19 14:00

Client ID: RB19_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	62		30-150	B
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	70		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-06
 Client ID: RB19_0-2
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:00
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/06/19 23:52
 Analyst: \DGM
 Percent Solids: 89%
 Methylation Date: 01/05/19 20:45

Extraction Method: EPA 8151A
 Extraction Date: 01/05/19 00:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	183	11.5	1	A
2,4,5-T	ND		ug/kg	183	5.66	1	A
2,4,5-TP (Silvex)	ND		ug/kg	183	4.86	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	93		30-150	A
DCAA	80		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-07
 Client ID: RB19_20-22
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/06/19 17:20
 Analyst: BM
 Percent Solids: 57%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 12:07
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	7.25	1.42	1	A
Lindane	ND		ug/kg	3.02	1.35	1	A
Alpha-BHC	ND		ug/kg	3.02	0.857	1	A
Beta-BHC	ND		ug/kg	7.25	2.75	1	A
Heptachlor	ND		ug/kg	3.62	1.62	1	A
Aldrin	ND		ug/kg	7.25	2.55	1	A
Heptachlor epoxide	ND		ug/kg	13.6	4.08	1	A
Endrin	ND		ug/kg	3.02	1.24	1	A
Endrin aldehyde	ND		ug/kg	9.06	3.17	1	A
Endrin ketone	ND		ug/kg	7.25	1.86	1	A
Dieldrin	ND		ug/kg	4.53	2.26	1	A
4,4'-DDE	ND		ug/kg	7.25	1.68	1	A
4,4'-DDD	ND		ug/kg	7.25	2.58	1	A
4,4'-DDT	ND		ug/kg	13.6	5.83	1	A
Endosulfan I	ND		ug/kg	7.25	1.71	1	A
Endosulfan II	ND		ug/kg	7.25	2.42	1	A
Endosulfan sulfate	ND		ug/kg	3.02	1.44	1	A
Methoxychlor	ND		ug/kg	13.6	4.23	1	A
Toxaphene	ND		ug/kg	136	38.0	1	A
cis-Chlordane	ND		ug/kg	9.06	2.52	1	A
trans-Chlordane	ND		ug/kg	9.06	2.39	1	A
Chlordane	ND		ug/kg	58.9	24.0	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-07
 Client ID: RB19_20-22
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	105		30-150	B
Decachlorobiphenyl	101		30-150	B
2,4,5,6-Tetrachloro-m-xylene	1650	Q	30-150	A
Decachlorobiphenyl	67		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-07
 Client ID: RB19_20-22
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:05
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/07/19 00:11
 Analyst: \DGM
 Percent Solids: 57%
 Methylation Date: 01/05/19 20:45

Extraction Method: EPA 8151A
 Extraction Date: 01/05/19 00:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	285	18.0	1	A
2,4,5-T	ND		ug/kg	285	8.84	1	A
2,4,5-TP (Silvex)	ND		ug/kg	285	7.59	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	101		30-150	A
DCAA	83		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-08
 Client ID: RB19_24-25
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:10
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/06/19 17:32
 Analyst: BM
 Percent Solids: 66%

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 12:07
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.33	0.456	1	A
Lindane	ND		ug/kg	0.971	0.434	1	A
Alpha-BHC	ND		ug/kg	0.971	0.276	1	A
Beta-BHC	ND		ug/kg	2.33	0.883	1	A
Heptachlor	ND		ug/kg	1.16	0.522	1	A
Aldrin	ND		ug/kg	2.33	0.820	1	A
Heptachlor epoxide	ND		ug/kg	4.37	1.31	1	A
Endrin	ND		ug/kg	0.971	0.398	1	A
Endrin aldehyde	ND		ug/kg	2.91	1.02	1	A
Endrin ketone	ND		ug/kg	2.33	0.600	1	A
Dieldrin	ND		ug/kg	1.46	0.728	1	A
4,4'-DDE	ND		ug/kg	2.33	0.539	1	A
4,4'-DDD	ND		ug/kg	2.33	0.831	1	A
4,4'-DDT	ND		ug/kg	4.37	1.87	1	A
Endosulfan I	ND		ug/kg	2.33	0.550	1	A
Endosulfan II	ND		ug/kg	2.33	0.778	1	A
Endosulfan sulfate	ND		ug/kg	0.971	0.462	1	A
Methoxychlor	ND		ug/kg	4.37	1.36	1	A
Toxaphene	ND		ug/kg	43.7	12.2	1	A
cis-Chlordane	ND		ug/kg	2.91	0.812	1	A
trans-Chlordane	ND		ug/kg	2.91	0.769	1	A
Chlordane	ND		ug/kg	18.9	7.72	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-08

Date Collected: 01/03/19 14:10

Client ID: RB19_24-25

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	B
Decachlorobiphenyl	82		30-150	B
2,4,5,6-Tetrachloro-m-xylene	5140	Q	30-150	A
Decachlorobiphenyl	39		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-08
 Client ID: RB19_24-25
 Sample Location: BRONX, NY

Date Collected: 01/03/19 14:10
 Date Received: 01/03/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/07/19 00:30
 Analyst: \DGM
 Percent Solids: 66%
 Methylation Date: 01/05/19 20:45

Extraction Method: EPA 8151A
 Extraction Date: 01/05/19 00:59

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	244	15.4	1	A
2,4,5-T	ND		ug/kg	244	7.56	1	A
2,4,5-TP (Silvex)	ND		ug/kg	244	6.49	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	96		30-150	A
DCAA	88		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/05/19 14:16
Analyst: KEG

Extraction Method: EPA 3546
Extraction Date: 01/04/19 12:07
Cleanup Method: EPA 3620B
Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-08 Batch: WG1194837-1						
Delta-BHC	ND		ug/kg	1.55	0.303	A
Lindane	ND		ug/kg	0.646	0.288	A
Alpha-BHC	ND		ug/kg	0.646	0.183	A
Beta-BHC	ND		ug/kg	1.55	0.587	A
Heptachlor	ND		ug/kg	0.775	0.347	A
Aldrin	ND		ug/kg	1.55	0.546	A
Heptachlor epoxide	ND		ug/kg	2.90	0.872	A
Endrin	ND		ug/kg	0.646	0.265	A
Endrin aldehyde	ND		ug/kg	1.94	0.678	A
Endrin ketone	ND		ug/kg	1.55	0.399	A
Dieldrin	ND		ug/kg	0.968	0.484	A
4,4'-DDE	ND		ug/kg	1.55	0.358	A
4,4'-DDD	ND		ug/kg	1.55	0.553	A
4,4'-DDT	ND		ug/kg	2.90	1.24	A
Endosulfan I	ND		ug/kg	1.55	0.366	A
Endosulfan II	ND		ug/kg	1.55	0.518	A
Endosulfan sulfate	ND		ug/kg	0.646	0.307	A
Methoxychlor	ND		ug/kg	2.90	0.904	A
Toxaphene	ND		ug/kg	29.0	8.13	A
cis-Chlordane	ND		ug/kg	1.94	0.540	A
trans-Chlordane	ND		ug/kg	1.94	0.511	A
Chlordane	ND		ug/kg	12.6	5.13	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 01/05/19 14:16
 Analyst: KEG

Extraction Method: EPA 3546
 Extraction Date: 01/04/19 12:07
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/05/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-08 Batch: WG1194837-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	79		30-150	B
Decachlorobiphenyl	94		30-150	B
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	100		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
 Analytical Date: 01/06/19 20:06
 Analyst: DGM

Extraction Method: EPA 8151A
 Extraction Date: 01/05/19 00:59

Methylation Date: 01/05/19 20:45

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-08 Batch: WG1194983-1						
2,4-D	ND		ug/kg	166	10.4	A
2,4,5-T	ND		ug/kg	166	5.14	A
2,4,5-TP (Silvex)	ND		ug/kg	166	4.41	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	90		30-150	A
DCAA	84		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG1194837-2 WG1194837-3									
Delta-BHC	98		104		30-150	6		30	A
Lindane	103		107		30-150	4		30	A
Alpha-BHC	110		114		30-150	4		30	A
Beta-BHC	93		106		30-150	13		30	A
Heptachlor	106		109		30-150	3		30	A
Aldrin	96		100		30-150	4		30	A
Heptachlor epoxide	103		106		30-150	3		30	A
Endrin	107		113		30-150	5		30	A
Endrin aldehyde	71		82		30-150	14		30	A
Endrin ketone	94		106		30-150	12		30	A
Dieldrin	112		117		30-150	4		30	A
4,4'-DDE	97		100		30-150	3		30	A
4,4'-DDD	103		108		30-150	5		30	A
4,4'-DDT	108		113		30-150	5		30	A
Endosulfan I	93		96		30-150	3		30	A
Endosulfan II	95		104		30-150	9		30	A
Endosulfan sulfate	76		87		30-150	13		30	A
Methoxychlor	106		121		30-150	13		30	A
cis-Chlordane	78		81		30-150	4		30	A
trans-Chlordane	76		71		30-150	7		30	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG1194837-2 WG1194837-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	77		82		30-150	B
Decachlorobiphenyl	83		91		30-150	B
2,4,5,6-Tetrachloro-m-xylene	81		84		30-150	A
Decachlorobiphenyl	92		97		30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-08 Batch: WG1194983-2 WG1194983-3									
2,4-D	90		93		30-150	3		30	A
2,4,5-T	96		100		30-150	4		30	A
2,4,5-TP (Silvex)	84		87		30-150	4		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	90		96		30-150	A
DCAA	87		91		30-150	B

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Organochlorine Pesticides by GC - Westborough Lab ID: RB21_2-4 Associated sample(s): 01-08 QC Batch ID: WG1194837-4 WG1194837-5 QC Sample: L1900324-02 Client													
Delta-BHC	ND	33.2	36.4P	110		35.3	105		30-150	3		50	A
Lindane	ND	33.2	37.0	111		37.5	111		30-150	1		50	A
Alpha-BHC	ND	33.2	38.4	116		39.2	116		30-150	2		50	A
Beta-BHC	ND	33.2	31.7	95		31.0	92		30-150	2		50	A
Heptachlor	ND	33.2	38.6P	116		37.7	112		30-150	2		50	A
Aldrin	ND	33.2	34.3	103		32.8	98		30-150	4		50	A
Heptachlor epoxide	ND	33.2	35.8P	108		35.1	104		30-150	2		50	A
Endrin	ND	33.2	37.6	113		37.3	111		30-150	1		50	A
Endrin aldehyde	ND	33.2	23.5	71		22.2	66		30-150	6		50	A
Endrin ketone	ND	33.2	32.8	99		31.7	94		30-150	3		50	A
Dieldrin	ND	33.2	39.4	119		38.8	115		30-150	2		50	A
4,4'-DDE	ND	33.2	29.2	88		29.2	87		30-150	0		50	A
4,4'-DDD	ND	33.2	34.2	103		34.4	102		30-150	1		50	A
4,4'-DDT	ND	33.2	36.6	110		36.7	109		30-150	0		50	A
Endosulfan I	ND	33.2	32.2	97		32.3	96		30-150	0		50	A
Endosulfan II	ND	33.2	33.6	101		33.1	98		30-150	1		50	A
Endosulfan sulfate	ND	33.2	24.0	72		23.6	70		30-150	2		50	A
Methoxychlor	ND	33.2	36.4	110		35.7	106		30-150	2		50	A
cis-Chlordane	ND	33.2	27.4	83		27.2	81		30-150	1		50	A
trans-Chlordane	ND	33.2	25.7	77		23.1	69		30-150	11		50	A

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1194837-4 WG1194837-5 QC Sample: L1900324-02 Client ID: RB21_2-4

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
2,4,5,6-Tetrachloro-m-xylene	78		75		30-150	B
Decachlorobiphenyl	64		69		30-150	B
2,4,5,6-Tetrachloro-m-xylene	83		86		30-150	A
Decachlorobiphenyl	87		87		30-150	A



Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1194983-4 WG1194983-5 QC Sample: L1900324-02 Client ID: RB21_2-4													
2,4-D	ND	173	159J	92		161J	93		30-150	1		30	A
2,4,5-T	ND	173	175	101		178	103		30-150	2		30	A
2,4,5-TP (Silvex)	ND	173	153J	88		157J	91		30-150	3		30	A

<i>Surrogate</i>	<i>MS</i>		<i>MSD</i>		<i>Acceptance Criteria</i>	<i>Column</i>
	<i>% Recovery</i>	<i>Qualifier</i>	<i>% Recovery</i>	<i>Qualifier</i>		
DCAA	101		107		30-150	A
DCAA	87		92		30-150	B

METALS

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-01

Date Collected: 01/03/19 11:30

Client ID: RB21_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 92%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5110		mg/kg	8.49	2.29	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Antimony, Total	6.53		mg/kg	4.24	0.323	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Arsenic, Total	10.4		mg/kg	0.849	0.177	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Barium, Total	260		mg/kg	0.849	0.148	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Beryllium, Total	0.153	J	mg/kg	0.424	0.028	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Cadmium, Total	0.968		mg/kg	0.849	0.083	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Calcium, Total	34000		mg/kg	8.49	2.97	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Chromium, Total	10.9		mg/kg	0.849	0.082	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Cobalt, Total	4.56		mg/kg	1.70	0.141	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Copper, Total	47.0		mg/kg	0.849	0.219	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Iron, Total	15000		mg/kg	4.24	0.767	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Lead, Total	2940		mg/kg	4.24	0.228	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Magnesium, Total	4210		mg/kg	8.49	1.31	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Manganese, Total	241		mg/kg	0.849	0.135	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Mercury, Total	0.881		mg/kg	0.068	0.014	1	01/05/19 07:00	01/08/19 20:44	EPA 7471B	1,7471B	EA
Nickel, Total	10.7		mg/kg	2.12	0.205	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Potassium, Total	808		mg/kg	212	12.2	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Selenium, Total	1.38	J	mg/kg	1.70	0.219	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Silver, Total	0.450	J	mg/kg	0.849	0.240	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Sodium, Total	616		mg/kg	170	2.67	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.70	0.267	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Vanadium, Total	14.9		mg/kg	0.849	0.172	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
Zinc, Total	874		mg/kg	4.24	0.249	2	01/04/19 18:55	01/08/19 01:07	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	11		mg/kg	0.87	0.87	1		01/08/19 01:07	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-02

Date Collected: 01/03/19 11:35

Client ID: RB21_2-4

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 95%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6910		mg/kg	8.28	2.23	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.14	0.314	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Arsenic, Total	9.28		mg/kg	0.828	0.172	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Barium, Total	153		mg/kg	0.828	0.144	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Beryllium, Total	ND		mg/kg	0.414	0.027	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Cadmium, Total	0.712	J	mg/kg	0.828	0.081	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Calcium, Total	57200		mg/kg	8.28	2.90	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Chromium, Total	14.0		mg/kg	0.828	0.079	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Cobalt, Total	7.18		mg/kg	1.66	0.137	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Copper, Total	191		mg/kg	0.828	0.214	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Iron, Total	21500		mg/kg	41.4	7.47	20	01/04/19 18:55	01/08/19 03:46	EPA 3050B	1,6010D	MC
Lead, Total	304		mg/kg	4.14	0.222	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Magnesium, Total	5000		mg/kg	8.28	1.27	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Manganese, Total	236		mg/kg	0.828	0.132	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Mercury, Total	0.520		mg/kg	0.066	0.014	1	01/05/19 07:00	01/08/19 20:15	EPA 7471B	1,7471B	EA
Nickel, Total	13.8		mg/kg	2.07	0.200	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Potassium, Total	1680		mg/kg	207	11.9	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Selenium, Total	0.720	J	mg/kg	1.66	0.214	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Silver, Total	0.256	J	mg/kg	0.828	0.234	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Sodium, Total	270		mg/kg	166	2.61	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.66	0.261	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Vanadium, Total	21.5		mg/kg	0.828	0.168	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
Zinc, Total	212		mg/kg	4.14	0.242	2	01/04/19 18:55	01/07/19 22:41	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	14		mg/kg	0.84	0.85	1		01/07/19 22:41	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-03

Date Collected: 01/03/19 11:40

Client ID: RB21_18-20

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	12200		mg/kg	8.22	2.22	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.11	0.312	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Arsenic, Total	1.37		mg/kg	0.822	0.171	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Barium, Total	142		mg/kg	0.822	0.143	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Beryllium, Total	ND		mg/kg	0.411	0.027	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Cadmium, Total	0.485	J	mg/kg	0.822	0.081	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Calcium, Total	9590		mg/kg	8.22	2.88	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Chromium, Total	27.9		mg/kg	0.822	0.079	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Cobalt, Total	19.7		mg/kg	1.64	0.136	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Copper, Total	54.0		mg/kg	0.822	0.212	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Iron, Total	26400		mg/kg	4.11	0.742	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Lead, Total	19.6		mg/kg	4.11	0.220	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Magnesium, Total	10600		mg/kg	8.22	1.26	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Manganese, Total	312		mg/kg	0.822	0.131	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Mercury, Total	ND		mg/kg	0.066	0.014	1	01/05/19 07:00	01/08/19 20:46	EPA 7471B	1,7471B	EA
Nickel, Total	24.3		mg/kg	2.05	0.199	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Potassium, Total	6430		mg/kg	205	11.8	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Selenium, Total	0.567	J	mg/kg	1.64	0.212	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.822	0.232	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Sodium, Total	159	J	mg/kg	164	2.59	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.64	0.259	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Vanadium, Total	41.1		mg/kg	0.822	0.167	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
Zinc, Total	78.5		mg/kg	4.11	0.241	2	01/04/19 18:55	01/08/19 01:11	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	28		mg/kg	0.83	0.83	1		01/08/19 01:11	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-04

Date Collected: 01/03/19 13:00

Client ID: RB22_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4240		mg/kg	8.76	2.36	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.38	0.333	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Arsenic, Total	3.67		mg/kg	0.876	0.182	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Barium, Total	121		mg/kg	0.876	0.152	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Beryllium, Total	0.053	J	mg/kg	0.438	0.029	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Cadmium, Total	0.456	J	mg/kg	0.876	0.086	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Calcium, Total	35700		mg/kg	8.76	3.07	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Chromium, Total	9.84		mg/kg	0.876	0.084	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Cobalt, Total	4.45		mg/kg	1.75	0.145	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Copper, Total	32.5		mg/kg	0.876	0.226	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Iron, Total	10800		mg/kg	4.38	0.791	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Lead, Total	425		mg/kg	4.38	0.235	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Magnesium, Total	6820		mg/kg	8.76	1.35	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Manganese, Total	212		mg/kg	0.876	0.139	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Mercury, Total	0.318		mg/kg	0.070	0.015	1	01/05/19 07:00	01/08/19 20:48	EPA 7471B	1,7471B	EA
Nickel, Total	8.81		mg/kg	2.19	0.212	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Potassium, Total	866		mg/kg	219	12.6	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Selenium, Total	0.727	J	mg/kg	1.75	0.226	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.876	0.248	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Sodium, Total	185		mg/kg	175	2.76	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.75	0.276	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Vanadium, Total	13.3		mg/kg	0.876	0.178	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
Zinc, Total	171		mg/kg	4.38	0.257	2	01/04/19 18:55	01/08/19 01:16	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	9.8		mg/kg	0.89	0.89	1		01/08/19 01:16	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-05

Date Collected: 01/03/19 13:05

Client ID: RB22_3-5

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	13100		mg/kg	8.85	2.39	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.43	0.336	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Arsenic, Total	2.43		mg/kg	0.885	0.184	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Barium, Total	187		mg/kg	0.885	0.154	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Beryllium, Total	ND		mg/kg	0.443	0.029	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Cadmium, Total	0.620	J	mg/kg	0.885	0.087	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Calcium, Total	22800		mg/kg	8.85	3.10	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Chromium, Total	24.8		mg/kg	0.885	0.085	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Cobalt, Total	17.8		mg/kg	1.77	0.147	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Copper, Total	81.5		mg/kg	0.885	0.228	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Iron, Total	29900		mg/kg	4.43	0.800	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Lead, Total	77.4		mg/kg	4.43	0.237	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Magnesium, Total	11600		mg/kg	8.85	1.36	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Manganese, Total	376		mg/kg	0.885	0.141	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Mercury, Total	0.200		mg/kg	0.071	0.015	1	01/05/19 07:00	01/08/19 20:50	EPA 7471B	1,7471B	EA
Nickel, Total	24.7		mg/kg	2.21	0.214	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Potassium, Total	7630		mg/kg	221	12.8	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Selenium, Total	0.434	J	mg/kg	1.77	0.228	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.885	0.250	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Sodium, Total	315		mg/kg	177	2.79	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.77	0.279	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Vanadium, Total	38.9		mg/kg	0.885	0.180	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
Zinc, Total	132		mg/kg	4.43	0.259	2	01/04/19 18:55	01/08/19 01:20	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	25		mg/kg	0.89	0.89	1		01/08/19 01:20	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-06

Date Collected: 01/03/19 14:00

Client ID: RB19_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	9090		mg/kg	8.46	2.28	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.23	0.321	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Arsenic, Total	12.3		mg/kg	0.846	0.176	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Barium, Total	1210		mg/kg	0.846	0.147	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Beryllium, Total	0.068	J	mg/kg	0.423	0.028	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Cadmium, Total	0.778	J	mg/kg	0.846	0.083	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Calcium, Total	8680		mg/kg	8.46	2.96	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Chromium, Total	16.8		mg/kg	0.846	0.081	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Cobalt, Total	9.79		mg/kg	1.69	0.140	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Copper, Total	52.1		mg/kg	0.846	0.218	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Iron, Total	24800		mg/kg	4.23	0.764	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Lead, Total	366		mg/kg	4.23	0.227	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Magnesium, Total	4980		mg/kg	8.46	1.30	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Manganese, Total	400		mg/kg	0.846	0.134	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Mercury, Total	2.32		mg/kg	0.071	0.015	1	01/05/19 07:00	01/08/19 20:52	EPA 7471B	1,7471B	EA
Nickel, Total	14.5		mg/kg	2.11	0.205	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Potassium, Total	1750		mg/kg	211	12.2	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Selenium, Total	1.46	J	mg/kg	1.69	0.218	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.846	0.239	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Sodium, Total	215		mg/kg	169	2.66	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.69	0.266	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Vanadium, Total	24.2		mg/kg	0.846	0.172	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
Zinc, Total	1200		mg/kg	4.23	0.248	2	01/04/19 18:55	01/08/19 01:25	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	16	J	mg/kg	0.90	0.90	1		01/08/19 01:25	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**SAMPLE RESULTS**

Lab ID: L1900324-07

Date Collected: 01/03/19 14:05

Client ID: RB19_20-22

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 57%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	14700		mg/kg	13.8	3.73	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	6.90	0.524	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Arsenic, Total	17.0		mg/kg	1.38	0.287	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Barium, Total	70.4		mg/kg	1.38	0.240	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Beryllium, Total	0.373	J	mg/kg	0.690	0.046	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Cadmium, Total	1.04	J	mg/kg	1.38	0.135	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Calcium, Total	3300		mg/kg	13.8	4.83	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Chromium, Total	40.0		mg/kg	1.38	0.132	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Cobalt, Total	11.2		mg/kg	2.76	0.229	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Copper, Total	78.2		mg/kg	1.38	0.356	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Iron, Total	30800		mg/kg	6.90	1.25	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Lead, Total	203		mg/kg	6.90	0.370	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Magnesium, Total	6350		mg/kg	13.8	2.12	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Manganese, Total	449		mg/kg	1.38	0.219	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Mercury, Total	4.38		mg/kg	0.218	0.046	2	01/05/19 07:00	01/09/19 00:01	EPA 7471B	1,7471B	EA
Nickel, Total	22.9		mg/kg	3.45	0.334	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Potassium, Total	2970		mg/kg	345	19.9	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Selenium, Total	1.62	J	mg/kg	2.76	0.356	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Silver, Total	0.497	J	mg/kg	1.38	0.391	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Sodium, Total	558		mg/kg	276	4.35	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	2.76	0.435	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Vanadium, Total	37.8		mg/kg	1.38	0.280	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
Zinc, Total	177		mg/kg	6.90	0.404	2	01/04/19 18:55	01/08/19 01:30	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	40		mg/kg	1.4	1.4	1		01/08/19 01:30	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-08

Date Collected: 01/03/19 14:10

Client ID: RB19_24-25

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 66%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	13800		mg/kg	11.6	3.14	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	5.82	0.442	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Arsenic, Total	17.8		mg/kg	1.16	0.242	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Barium, Total	80.2		mg/kg	1.16	0.202	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Beryllium, Total	0.256	J	mg/kg	0.582	0.038	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Cadmium, Total	1.09	J	mg/kg	1.16	0.114	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Calcium, Total	2500		mg/kg	11.6	4.07	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Chromium, Total	36.8		mg/kg	1.16	0.112	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Cobalt, Total	10.9		mg/kg	2.33	0.193	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Copper, Total	96.5		mg/kg	1.16	0.300	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Iron, Total	29000		mg/kg	5.82	1.05	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Lead, Total	252		mg/kg	5.82	0.312	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Magnesium, Total	6020		mg/kg	11.6	1.79	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Manganese, Total	292		mg/kg	1.16	0.185	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Mercury, Total	3.75		mg/kg	0.095	0.020	1	01/05/19 07:00	01/08/19 21:00	EPA 7471B	1,7471B	EA
Nickel, Total	21.4		mg/kg	2.91	0.282	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Potassium, Total	2920		mg/kg	291	16.8	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Selenium, Total	1.36	J	mg/kg	2.33	0.300	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Silver, Total	0.663	J	mg/kg	1.16	0.329	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Sodium, Total	601		mg/kg	233	3.66	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	2.33	0.366	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Vanadium, Total	33.8		mg/kg	1.16	0.236	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
Zinc, Total	226		mg/kg	5.82	0.341	2	01/04/19 18:55	01/08/19 01:34	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	37		mg/kg	1.2	1.2	1		01/08/19 01:34	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG1194873-1									
Aluminum, Total	ND	mg/kg	4.00	1.08	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Antimony, Total	ND	mg/kg	2.00	0.152	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Arsenic, Total	ND	mg/kg	0.400	0.083	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Barium, Total	ND	mg/kg	0.400	0.070	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Beryllium, Total	ND	mg/kg	0.200	0.013	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Cadmium, Total	ND	mg/kg	0.400	0.039	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Calcium, Total	ND	mg/kg	4.00	1.40	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Chromium, Total	ND	mg/kg	0.400	0.038	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Cobalt, Total	ND	mg/kg	0.800	0.066	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Copper, Total	ND	mg/kg	0.400	0.103	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Iron, Total	ND	mg/kg	2.00	0.361	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Lead, Total	ND	mg/kg	2.00	0.107	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Magnesium, Total	ND	mg/kg	4.00	0.616	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Manganese, Total	ND	mg/kg	0.400	0.064	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Nickel, Total	ND	mg/kg	1.00	0.097	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Potassium, Total	ND	mg/kg	100	5.76	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Selenium, Total	ND	mg/kg	0.800	0.103	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Silver, Total	ND	mg/kg	0.400	0.113	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Sodium, Total	ND	mg/kg	80.0	1.26	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Thallium, Total	ND	mg/kg	0.800	0.126	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Vanadium, Total	ND	mg/kg	0.400	0.081	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC
Zinc, Total	ND	mg/kg	2.00	0.117	1	01/04/19 18:55	01/07/19 21:42	1,6010D	MC

Prep Information

Digestion Method: EPA 3050B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-08 Batch: WG1195001-1									
Mercury, Total	ND	mg/kg	0.083	0.018	1	01/05/19 07:00	01/08/19 20:11	1,7471B	EA



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900324

Report Date: 01/10/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1194873-2 SRM Lot Number: D102-540								
Aluminum, Total	66		-		49-150	-		
Antimony, Total	139		-		1-199	-		
Arsenic, Total	98		-		83-117	-		
Barium, Total	89		-		83-118	-		
Beryllium, Total	90		-		83-116	-		
Cadmium, Total	98		-		83-118	-		
Calcium, Total	84		-		82-118	-		
Chromium, Total	90		-		83-117	-		
Cobalt, Total	93		-		84-116	-		
Copper, Total	88		-		84-116	-		
Iron, Total	87		-		61-139	-		
Lead, Total	94		-		82-118	-		
Magnesium, Total	79		-		76-124	-		
Manganese, Total	89		-		82-118	-		
Nickel, Total	93		-		83-117	-		
Potassium, Total	75		-		70-130	-		
Selenium, Total	98		-		79-121	-		
Silver, Total	92		-		80-120	-		
Sodium, Total	92		-		74-126	-		
Thallium, Total	97		-		81-119	-		
Vanadium, Total	88		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900324

Report Date: 01/10/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1194873-2 SRM Lot Number: D102-540					
Zinc, Total	94	-	81-118	-	
Total Metals - Mansfield Lab Associated sample(s): 01-08 Batch: WG1195001-2 SRM Lot Number: D102-540					
Mercury, Total	104	-	65-134	-	

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1194873-3 WG1194873-4 QC Sample: L1900324-02 Client ID: RB21_2-4												
Aluminum, Total	6910	166	6630	0	Q	6160	0	Q	75-125	7		20
Antimony, Total	ND	41.5	30.6	74	Q	30.2	75		75-125	1		20
Arsenic, Total	9.28	9.96	23.3	141	Q	16.6	76		75-125	34	Q	20
Barium, Total	153	166	352	120		317	102		75-125	10		20
Beryllium, Total	ND	4.15	3.65	88		3.48	87		75-125	5		20
Cadmium, Total	0.712J	4.23	4.93	116		4.43	108		75-125	11		20
Calcium, Total	57200	830	78600	2580	Q	76500	2410	Q	75-125	3		20
Chromium, Total	14.0	16.6	28.9	90		25.8	74	Q	75-125	11		20
Cobalt, Total	7.18	41.5	44.6	90		40.3	83		75-125	10		20
Copper, Total	191	20.8	204	63	Q	208	85		75-125	2		20
Iron, Total	21500	83	35000	16300	Q	20000	0	Q	75-125	55	Q	20
Lead, Total	304	42.3	342	90		313	22	Q	75-125	9		20
Magnesium, Total	5000	830	7520	304	Q	5510	64	Q	75-125	31	Q	20
Manganese, Total	236	41.5	319	200	Q	268	80		75-125	17		20
Nickel, Total	13.8	41.5	50.9	89		45.0	78		75-125	12		20
Potassium, Total	1680	830	2830	138	Q	2310	79		75-125	20		20
Selenium, Total	0.720J	9.96	10.2	102		9.59	100		75-125	6		20
Silver, Total	0.256J	24.9	27.0	108		25.8	107		75-125	5		20
Sodium, Total	270	830	1090	99		1070	100		75-125	2		20
Thallium, Total	ND	9.96	6.96	70	Q	6.64	69	Q	75-125	5		20
Vanadium, Total	21.5	41.5	64.1	103		55.1	84		75-125	15		20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1194873-3 WG1194873-4 QC Sample: L1900324-02 Client ID: RB21_2-4									
Zinc, Total	212	41.5	263	123	236	60	Q 75-125	11	20
Total Metals - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1195001-3 WG1195001-4 QC Sample: L1900324-02 Client ID: RB21_2-4									
Mercury, Total	0.520	0.133	0.663	108	0.688	127	Q 80-120	4	20

INORGANICS & MISCELLANEOUS

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-01

Date Collected: 01/03/19 11:30

Client ID: RB21_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.3		%	0.100	NA	1	-	01/04/19 15:45	121,2540G	RI
Cyanide, Total	0.97	J	mg/kg	1.0	0.22	1	01/04/19 11:15	01/04/19 13:37	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.867	0.173	1	01/04/19 17:15	01/04/19 23:00	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-02

Date Collected: 01/03/19 11:35

Client ID: RB21_2-4

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	94.7		%	0.100	NA	1	-	01/04/19 15:45	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	01/04/19 11:15	01/04/19 13:38	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.845	0.169	1	01/04/19 17:15	01/04/19 23:00	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-03

Date Collected: 01/03/19 11:40

Client ID: RB21_18-20

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.2		%	0.100	NA	1	-	01/04/19 15:45	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	01/04/19 11:15	01/04/19 13:41	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.832	0.166	1	01/04/19 17:15	01/04/19 23:00	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-04

Date Collected: 01/03/19 13:00

Client ID: RB22_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.0		%	0.100	NA	1	-	01/04/19 15:45	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	01/04/19 11:15	01/04/19 13:42	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.889	0.178	1	01/04/19 17:15	01/04/19 23:00	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-05
Client ID: RB22_3-5
Sample Location: BRONX, NY

Date Collected: 01/03/19 13:05
Date Received: 01/03/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.7		%	0.100	NA	1	-	01/04/19 15:45	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	01/04/19 11:15	01/04/19 13:43	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.892	0.178	1	01/04/19 17:15	01/04/19 23:00	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-06

Date Collected: 01/03/19 14:00

Client ID: RB19_0-2

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.7		%	0.100	NA	1	-	01/04/19 15:45	121,2540G	RI
Cyanide, Total	0.24	J	mg/kg	1.0	0.22	1	01/04/19 11:15	01/04/19 13:44	1,9010C/9012B	LH
Chromium, Hexavalent	0.293	J	mg/kg	0.902	0.180	1	01/04/19 17:15	01/04/19 23:00	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-07

Date Collected: 01/03/19 14:05

Client ID: RB19_20-22

Date Received: 01/03/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	57.4		%	0.100	NA	1	-	01/04/19 15:45	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.6	0.35	1	01/04/19 11:15	01/04/19 13:45	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	1.39	0.279	1	01/04/19 17:15	01/04/19 23:00	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

SAMPLE RESULTS

Lab ID: L1900324-08
Client ID: RB19_24-25
Sample Location: BRONX, NY

Date Collected: 01/03/19 14:10
Date Received: 01/03/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	66.2		%	0.100	NA	1	-	01/04/19 15:45	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.4	0.30	1	01/04/19 11:15	01/04/19 14:10	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	1.21	0.242	1	01/04/19 17:15	01/04/19 23:00	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG1194787-1									
Cyanide, Total	ND	mg/kg	0.99	0.21	1	01/04/19 11:15	01/04/19 13:20	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 01-08 Batch: WG1194953-1									
Chromium, Hexavalent	ND	mg/kg	0.800	0.160	1	01/04/19 17:15	01/04/19 23:00	1,7196A	AJ

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG1194787-2 WG1194787-3								
Cyanide, Total	48	Q	46	Q	80-120	3		35
General Chemistry - Westborough Lab Associated sample(s): 01-08 Batch: WG1194953-2								
Chromium, Hexavalent	99		-		80-120	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1194787-4 WG1194787-5 QC Sample: L1900324-02 Client ID: RB21_2-4												
Cyanide, Total	ND	10	10	96		9.3	95		75-125	7		35
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1194953-4 WG1194953-5 QC Sample: L1900324-02 Client ID: RB21_2-4												
Chromium, Hexavalent	ND	901	960	107		1030	98		75-125	7		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900324

Report Date: 01/10/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1194871-1 QC Sample: L1900324-02 Client ID: RB21_2-4						
Solids, Total	94.7	94.8	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-08 QC Batch ID: WG1194953-7 QC Sample: L1900324-02 Client ID: RB21_2-4						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900324**Project Number:** 170487001**Report Date:** 01/10/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900324-01A	Vial MeOH preserved	A	NA		3.9	Y	Absent		NYTCL-8260HLW(14)
L1900324-01B	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-01C	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-01D	Plastic 2oz unpreserved for TS	A	NA		3.9	Y	Absent		TS(7)
L1900324-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.9	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900324-01F	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-01G	Glass 500ml/16oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-02A	Vial MeOH preserved	A	NA		3.9	Y	Absent		NYTCL-8260HLW(14)
L1900324-02A1	Vial MeOH preserved	A	NA		3.9	Y	Absent		NYTCL-8260HLW(14)
L1900324-02A2	Vial MeOH preserved	A	NA		3.9	Y	Absent		NYTCL-8260HLW(14)
L1900324-02B	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-02B1	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-02B2	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-02C	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-02C1	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-02C2	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-02D	Plastic 2oz unpreserved for TS	A	NA		3.9	Y	Absent		TS(7)
L1900324-02D1	Plastic 2oz unpreserved for TS	A	NA		3.9	Y	Absent		TS(7)
L1900324-02D2	Plastic 2oz unpreserved for TS	A	NA		3.9	Y	Absent		TS(7)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Serial_No:01101913:48
Lab Number: L1900324
Report Date: 01/10/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900324-02E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.9	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900324-02E1	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.9	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900324-02E2	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.9	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900324-02F	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-02F1	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-02F2	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-02G	Glass 500ml/16oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-02G1	Glass 500ml/16oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-02G2	Glass 500ml/16oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-03A	Vial MeOH preserved	A	NA		3.9	Y	Absent		NYTCL-8260HLW(14)
L1900324-03B	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-03C	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-03D	Plastic 2oz unpreserved for TS	A	NA		3.9	Y	Absent		TS(7)

*Values in parentheses indicate holding time in days



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900324

Project Number: 170487001

Report Date: 01/10/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900324-03E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.9	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900324-03F	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-03G	Glass 500ml/16oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-04A	Vial MeOH preserved	A	NA		3.9	Y	Absent		NYTCL-8260HLW(14)
L1900324-04B	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-04C	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-04D	Plastic 2oz unpreserved for TS	A	NA		3.9	Y	Absent		TS(7)
L1900324-04E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.9	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900324-04F	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-04G	Glass 500ml/16oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-05A	Vial MeOH preserved	A	NA		3.9	Y	Absent		NYTCL-8260HLW(14)
L1900324-05B	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-05C	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-05D	Plastic 2oz unpreserved for TS	A	NA		3.9	Y	Absent		TS(7)
L1900324-05E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.9	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900324-05F	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Serial_No:01101913:48
Lab Number: L1900324
Report Date: 01/10/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900324-05G	Glass 500ml/16oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-06A	Vial MeOH preserved	A	NA		3.9	Y	Absent		NYTCL-8260HLW(14)
L1900324-06B	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-06C	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-06D	Plastic 2oz unpreserved for TS	A	NA		3.9	Y	Absent		TS(7)
L1900324-06E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.9	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900324-06F	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-06G	Glass 500ml/16oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-07A	Vial MeOH preserved	A	NA		3.9	Y	Absent		NYTCL-8260HLW(14)
L1900324-07B	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-07C	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-07D	Plastic 2oz unpreserved for TS	A	NA		3.9	Y	Absent		TS(7)
L1900324-07E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.9	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900324-07F	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-07G	Glass 500ml/16oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-08A	Vial MeOH preserved	A	NA		3.9	Y	Absent		NYTCL-8260HLW(14)
L1900324-08B	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-08C	Vial water preserved	A	NA		3.9	Y	Absent	04-JAN-19 05:48	NYTCL-8260HLW(14)
L1900324-08D	Plastic 2oz unpreserved for TS	A	NA		3.9	Y	Absent		TS(7)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Serial_No:01101913:48
Lab Number: L1900324
Report Date: 01/10/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900324-08E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		3.9	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900324-08F	Glass 120ml/4oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-08G	Glass 500ml/16oz unpreserved	A	NA		3.9	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900324-09A	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)
L1900324-09B	Vial HCl preserved	A	NA		3.9	Y	Absent		NYTCL-8260(14)

*Values in parentheses indicate holding time in days



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

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GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900324
Report Date: 01/10/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 ALPHA ANALYTICAL <small>ANALYTICAL CORPORATION</small>	NEW YORK CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page 1 of 1	Date Rec'd in Lab 1/31/19	ALPHA Job # 21906324								
		Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288											
Client Information		Project Information			Deliverables		Billing Information							
Client: Langan Engineering		Project Name: Gerard Ave + E. 146th St.			<input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		<input checked="" type="checkbox"/> Same as Client Info							
Address: 21 Penn Plaza, 360 W. 31st St 8th Fl., NY, NY 10001-2727		Project Location: Bronx, NY					PO #							
Phone: (212) 479-5400		Project # 170487001			Regulatory Requirement		Disposal Site Information							
Fax: (212) 479-5444		(Use Project name as Project #) <input type="checkbox"/>			<input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Please identify below location of applicable disposal facilities.							
Email: jleung@langan.com		Turn-Around Time					Disposal Facility:							
		Standard <input checked="" type="checkbox"/> Due Date:					<input type="checkbox"/> NJ <input type="checkbox"/> NY							
		Rush (only if pre approved) <input type="checkbox"/> # of Days:					<input type="checkbox"/> Other:							
These samples have been previously analyzed by Alpha <input type="checkbox"/>					ANALYSIS		Sample Filtration							
Other project specific requirements/comments:					Part 375/TCL VOCs Part 375/TCL SVOCs Part 375/TCL PCBs Pesticides Herbicides TAL Metals Hex Chromium Total Cyanide	<input type="checkbox"/> Done <input type="checkbox"/> Lab to do <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do								
Please also cc: datamanagement@langan.com and vzuluaga@langan.com						Total Bottle								
Please specify Metals or TAL.														
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date Time		Sample Matrix	Sampler's Initials	Sample Specific Comments								
00324-01	RB21-0-2	1/3/19	1130	Soil	JL	X	X	X	X	X	X	X	X	
-02	RB21-2-4		1135		JL									collected MS/MSD
-03	RB21-18-20		1140		JL									
-04	RB22-0-2		1300		JL									
-05	RB22-3-5		1305		JL									
-06	RB19-0-2		1400		JL									
-07	RB19-20-22		1405		JL									
-08	RB19-24-25		1410		JL									
-09	SOTB65-010319	-	-	AQ	JL	X								
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)						
		Relinquished By:		Date/Time		Received By:		Date/Time						
		JL		1/3/19 - 14:47		D. Santos		1/3/19 14:47						
		D. Santos		1/3/19 16:15		D. Santos		1/3/19 1900						
		D. Santos		1/3/19 2230		Cg		1/3/19 2230						
Form No: 01-25 HC (rev. 30-Sept-2013)														



ANALYTICAL REPORT

Lab Number:	L1900707
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	GERARD AVE. + E. 146TH ST.
Project Number:	170487001
Report Date:	01/14/19

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1900707-01	RB13_0-2	SOIL	BRONX, NY	01/07/19 10:45	01/07/19
L1900707-02	RB13_18-20	SOIL	BRONX, NY	01/07/19 11:00	01/07/19
L1900707-03	RB13_22-24	SOIL	BRONX, NY	01/07/19 10:50	01/07/19
L1900707-04	RB13_33-35	SOIL	BRONX, NY	01/07/19 10:55	01/07/19
L1900707-05	RB14_0-2	SOIL	BRONX, NY	01/07/19 12:20	01/07/19
L1900707-06	RB14_18-20	SOIL	BRONX, NY	01/07/19 12:25	01/07/19
L1900707-07	RB14_23-25	SOIL	BRONX, NY	01/07/19 12:30	01/07/19
L1900707-08	RB14_33-35	SOIL	BRONX, NY	01/07/19 12:35	01/07/19
L1900707-09	SODUP04_010719	SOIL	BRONX, NY	01/07/19 00:00	01/07/19
L1900707-10	SOTB06_010719	WATER	BRONX, NY	01/07/19 00:00	01/07/19
L1900707-11	SOFB03_010719	WATER	BRONX, NY	01/07/19 14:00	01/07/19

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Volatile Organics

L1900707-03, -06, -07, and -09: The sample has elevated detection limits due to the dilution required by the elevated concentrations of non-target compounds in the sample.

L1900707-03, -06, -07, and -09: The surrogate recovery is outside the acceptance criteria for 4-bromofluorobenzene (146%, 149%, 131%, and 147%); however, the sample was not re-analyzed due to coelution with an obvious interference. A copy of the chromatogram is included as an attachment to this report.

Semivolatile Organics

L1900707-07: The sample has elevated detection limits due to the dilution required by the sample matrix.

The WG1195621-4/-5 MS/MSD recoveries, performed on L1900707-03, are below the acceptance criteria for nitrobenzene (MSD 39%), acetophenone (0%/0%), 2,4-dinitrophenol (0%/0%), 4,6-dinitro-o-cresol (0%/0%), and benzoic acid (0%/0%), due to the concentrations of these compounds falling below the reported detection limits.

The WG1195621-4/-5 MS/MSD recoveries, performed on L1900707-03, are outside the acceptance criteria for naphthalene (0%/0%) and 2-methylnaphthalene (0%/0%). The unacceptable percent recoveries are attributed to the elevated concentrations of target compounds present in the native sample.

Total Metals

L1900707-01 through -09: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1196431-3/-4 MS/MSD recoveries for aluminum (420%/1450%) and iron (559%/2840%), performed on L1900707-03, do not apply because the sample concentrations are greater than four times the spike amounts added. The MS/MSD RPDs for aluminum (39%) and iron (25%) are above the acceptance criteria.

The WG1196431-4 MSD recoveries, performed on L1900707-03, are outside the acceptance criteria for

Project Name: GERARD AVE. + E. 146TH ST.
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Lab Number: L1900707
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Case Narrative (continued)

magnesium (163%), manganese (151%), and potassium (126%). A post digestion spike was performed and was within acceptance criteria.

Cyanide, Total

The WG1195617-2/-3 LCS/LCSD recoveries (60%/62%), associated with L1900707-01 through -09, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

Hexavalent Chromium

The WG1196593-6 Soluble MS recovery (73%) was below criteria. This has been attributed to matrix interference. A post-spike was performed with an acceptable recovery of 99%.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 01/14/19

ORGANICS

VOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-01
 Client ID: RB13_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:45
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/10/19 14:36
 Analyst: AD
 Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.8	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.14	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	0.77		ug/kg	0.58	0.23	1
Chlorobenzene	ND		ug/kg	0.58	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.6	0.80	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.58	0.19	1
Bromodichloromethane	ND		ug/kg	0.58	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.58	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.58	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.58	0.18	1
Bromoform	ND		ug/kg	4.6	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.58	0.19	1
Benzene	0.76		ug/kg	0.58	0.19	1
Toluene	0.80	J	ug/kg	1.2	0.63	1
Ethylbenzene	0.18	J	ug/kg	1.2	0.16	1
Chloromethane	ND		ug/kg	4.6	1.1	1
Bromomethane	ND		ug/kg	2.3	0.67	1
Vinyl chloride	ND		ug/kg	1.2	0.39	1
Chloroethane	ND		ug/kg	2.3	0.52	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-01

Date Collected: 01/07/19 10:45

Client ID: RB13_0-2

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.58	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.3	0.23	1
p/m-Xylene	0.88	J	ug/kg	2.3	0.65	1
o-Xylene	ND		ug/kg	1.2	0.34	1
Xylenes, Total	0.88	J	ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.3	0.28	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	7.4	J	ug/kg	12	5.6	1
Carbon disulfide	ND		ug/kg	12	5.3	1
2-Butanone	ND		ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.5	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.3	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.3	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.3	0.23	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.32	1
1,3-Dichloropropane	ND		ug/kg	2.3	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.58	0.15	1
Bromobenzene	ND		ug/kg	2.3	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.19	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.3	0.14	1
o-Chlorotoluene	ND		ug/kg	2.3	0.22	1
p-Chlorotoluene	ND		ug/kg	2.3	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.6	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.6	0.75	1
Acrylonitrile	ND		ug/kg	4.6	1.3	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-01
 Client ID: RB13_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:45
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.37	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.32	1
1,3,5-Trimethylbenzene	0.26	J	ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.39	1
1,4-Dioxane	ND		ug/kg	120	41.	1
p-Diethylbenzene	ND		ug/kg	2.3	0.20	1
p-Ethyltoluene	ND		ug/kg	2.3	0.44	1
1,2,4,5-Tetramethylbenzene	0.66	J	ug/kg	2.3	0.22	1
Ethyl ether	ND		ug/kg	2.3	0.40	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.8	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	96		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-02 D
 Client ID: RB13_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 11:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/10/19 18:06
 Analyst: AD
 Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	2800	1300	10
1,1-Dichloroethane	ND		ug/kg	560	81.	10
Chloroform	ND		ug/kg	840	78.	10
Carbon tetrachloride	ND		ug/kg	560	130	10
1,2-Dichloropropane	ND		ug/kg	560	70.	10
Dibromochloromethane	ND		ug/kg	560	78.	10
1,1,2-Trichloroethane	ND		ug/kg	560	150	10
Tetrachloroethene	ND		ug/kg	280	110	10
Chlorobenzene	ND		ug/kg	280	71.	10
Trichlorofluoromethane	ND		ug/kg	2200	390	10
1,2-Dichloroethane	ND		ug/kg	560	140	10
1,1,1-Trichloroethane	ND		ug/kg	280	93.	10
Bromodichloromethane	ND		ug/kg	280	61.	10
trans-1,3-Dichloropropene	ND		ug/kg	560	150	10
cis-1,3-Dichloropropene	ND		ug/kg	280	88.	10
1,3-Dichloropropene, Total	ND		ug/kg	280	88.	10
1,1-Dichloropropene	ND		ug/kg	280	89.	10
Bromoform	ND		ug/kg	2200	140	10
1,1,2,2-Tetrachloroethane	ND		ug/kg	280	93.	10
Benzene	1700		ug/kg	280	93.	10
Toluene	1600		ug/kg	560	300	10
Ethylbenzene	37000		ug/kg	560	79.	10
Chloromethane	ND		ug/kg	2200	520	10
Bromomethane	ND		ug/kg	1100	320	10
Vinyl chloride	ND		ug/kg	560	190	10
Chloroethane	ND		ug/kg	1100	250	10
1,1-Dichloroethene	ND		ug/kg	560	130	10
trans-1,2-Dichloroethene	ND		ug/kg	840	77.	10

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-02 D

Date Collected: 01/07/19 11:00

Client ID: RB13_18-20

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	280	77.	10
1,2-Dichlorobenzene	ND		ug/kg	1100	80.	10
1,3-Dichlorobenzene	ND		ug/kg	1100	83.	10
1,4-Dichlorobenzene	ND		ug/kg	1100	96.	10
Methyl tert butyl ether	ND		ug/kg	1100	110	10
p/m-Xylene	93000		ug/kg	1100	310	10
o-Xylene	24000		ug/kg	560	160	10
Xylenes, Total	120000		ug/kg	560	160	10
cis-1,2-Dichloroethene	ND		ug/kg	560	98.	10
1,2-Dichloroethene, Total	ND		ug/kg	560	77.	10
Dibromomethane	ND		ug/kg	1100	130	10
Styrene	ND		ug/kg	560	110	10
Dichlorodifluoromethane	ND		ug/kg	5600	510	10
Acetone	ND		ug/kg	5600	2700	10
Carbon disulfide	ND		ug/kg	5600	2500	10
2-Butanone	ND		ug/kg	5600	1200	10
Vinyl acetate	ND		ug/kg	5600	1200	10
4-Methyl-2-pentanone	ND		ug/kg	5600	720	10
1,2,3-Trichloropropane	ND		ug/kg	1100	71.	10
2-Hexanone	ND		ug/kg	5600	660	10
Bromochloromethane	ND		ug/kg	1100	110	10
2,2-Dichloropropane	ND		ug/kg	1100	110	10
1,2-Dibromoethane	ND		ug/kg	560	160	10
1,3-Dichloropropane	ND		ug/kg	1100	93.	10
1,1,1,2-Tetrachloroethane	ND		ug/kg	280	74.	10
Bromobenzene	ND		ug/kg	1100	81.	10
n-Butylbenzene	5500		ug/kg	560	93.	10
sec-Butylbenzene	2000		ug/kg	560	82.	10
tert-Butylbenzene	200	J	ug/kg	1100	66.	10
o-Chlorotoluene	ND		ug/kg	1100	110	10
p-Chlorotoluene	ND		ug/kg	1100	60.	10
1,2-Dibromo-3-chloropropane	ND		ug/kg	1700	560	10
Hexachlorobutadiene	160	J	ug/kg	2200	94.	10
Isopropylbenzene	7100		ug/kg	560	61.	10
p-Isopropyltoluene	2000		ug/kg	560	61.	10
Naphthalene	12000		ug/kg	2200	360	10
Acrylonitrile	ND		ug/kg	2200	640	10

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-02 D
 Client ID: RB13_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 11:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	18000		ug/kg	560	96.	10
1,2,3-Trichlorobenzene	ND		ug/kg	1100	180	10
1,2,4-Trichlorobenzene	ND		ug/kg	1100	150	10
1,3,5-Trimethylbenzene	38000		ug/kg	1100	110	10
1,2,4-Trimethylbenzene	110000		ug/kg	1100	190	10
1,4-Dioxane	ND		ug/kg	56000	20000	10
p-Diethylbenzene	3200		ug/kg	1100	99.	10
p-Ethyltoluene	75000		ug/kg	1100	210	10
1,2,4,5-Tetramethylbenzene	12000		ug/kg	1100	110	10
Ethyl ether	ND		ug/kg	1100	190	10
trans-1,4-Dichloro-2-butene	ND		ug/kg	2800	790	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	126		70-130
Dibromofluoromethane	84		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-03 D
 Client ID: RB13_22-24
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:50
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/10/19 16:21
 Analyst: AD
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	1500	690	5
1,1-Dichloroethane	ND		ug/kg	300	44.	5
Chloroform	ND		ug/kg	450	42.	5
Carbon tetrachloride	ND		ug/kg	300	70.	5
1,2-Dichloropropane	ND		ug/kg	300	38.	5
Dibromochloromethane	ND		ug/kg	300	42.	5
1,1,2-Trichloroethane	ND		ug/kg	300	81.	5
Tetrachloroethene	ND		ug/kg	150	59.	5
Chlorobenzene	ND		ug/kg	150	38.	5
Trichlorofluoromethane	ND		ug/kg	1200	210	5
1,2-Dichloroethane	ND		ug/kg	300	78.	5
1,1,1-Trichloroethane	ND		ug/kg	150	50.	5
Bromodichloromethane	ND		ug/kg	150	33.	5
trans-1,3-Dichloropropene	ND		ug/kg	300	82.	5
cis-1,3-Dichloropropene	ND		ug/kg	150	48.	5
1,3-Dichloropropene, Total	ND		ug/kg	150	48.	5
1,1-Dichloropropene	ND		ug/kg	150	48.	5
Bromoform	ND		ug/kg	1200	74.	5
1,1,2,2-Tetrachloroethane	ND		ug/kg	150	50.	5
Benzene	1400		ug/kg	150	50.	5
Toluene	490		ug/kg	300	160	5
Ethylbenzene	9700		ug/kg	300	43.	5
Chloromethane	ND		ug/kg	1200	280	5
Bromomethane	ND		ug/kg	600	180	5
Vinyl chloride	ND		ug/kg	300	100	5
Chloroethane	ND		ug/kg	600	140	5
1,1-Dichloroethene	ND		ug/kg	300	72.	5
trans-1,2-Dichloroethene	ND		ug/kg	450	41.	5

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-03 D

Date Collected: 01/07/19 10:50

Client ID: RB13_22-24

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	150	41.	5
1,2-Dichlorobenzene	ND		ug/kg	600	44.	5
1,3-Dichlorobenzene	ND		ug/kg	600	45.	5
1,4-Dichlorobenzene	ND		ug/kg	600	52.	5
Methyl tert butyl ether	ND		ug/kg	600	61.	5
p/m-Xylene	4000		ug/kg	600	170	5
o-Xylene	1200		ug/kg	300	88.	5
Xylenes, Total	5200		ug/kg	300	88.	5
cis-1,2-Dichloroethene	ND		ug/kg	300	53.	5
1,2-Dichloroethene, Total	ND		ug/kg	300	41.	5
Dibromomethane	ND		ug/kg	600	72.	5
Styrene	ND		ug/kg	300	59.	5
Dichlorodifluoromethane	ND		ug/kg	3000	280	5
Acetone	ND		ug/kg	3000	1400	5
Carbon disulfide	ND		ug/kg	3000	1400	5
2-Butanone	ND		ug/kg	3000	670	5
Vinyl acetate	ND		ug/kg	3000	650	5
4-Methyl-2-pentanone	ND		ug/kg	3000	390	5
1,2,3-Trichloropropane	ND		ug/kg	600	38.	5
2-Hexanone	ND		ug/kg	3000	360	5
Bromochloromethane	ND		ug/kg	600	62.	5
2,2-Dichloropropane	ND		ug/kg	600	61.	5
1,2-Dibromoethane	ND		ug/kg	300	84.	5
1,3-Dichloropropane	ND		ug/kg	600	50.	5
1,1,1,2-Tetrachloroethane	ND		ug/kg	150	40.	5
Bromobenzene	ND		ug/kg	600	44.	5
n-Butylbenzene	11000		ug/kg	300	50.	5
sec-Butylbenzene	2900		ug/kg	300	44.	5
tert-Butylbenzene	280	J	ug/kg	600	36.	5
o-Chlorotoluene	ND		ug/kg	600	58.	5
p-Chlorotoluene	ND		ug/kg	600	33.	5
1,2-Dibromo-3-chloropropane	ND		ug/kg	910	300	5
Hexachlorobutadiene	ND		ug/kg	1200	51.	5
Isopropylbenzene	12000		ug/kg	300	33.	5
p-Isopropyltoluene	2300		ug/kg	300	33.	5
Naphthalene	25000		ug/kg	1200	200	5
Acrylonitrile	ND		ug/kg	1200	350	5

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-03 D
 Client ID: RB13_22-24
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:50
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	30000		ug/kg	300	52.	5
1,2,3-Trichlorobenzene	ND		ug/kg	600	97.	5
1,2,4-Trichlorobenzene	ND		ug/kg	600	82.	5
1,3,5-Trimethylbenzene	6700		ug/kg	600	58.	5
1,2,4-Trimethylbenzene	300	J	ug/kg	600	100	5
1,4-Dioxane	ND		ug/kg	30000	11000	5
p-Diethylbenzene	5800		ug/kg	600	53.	5
p-Ethyltoluene	6400		ug/kg	600	120	5
1,2,4,5-Tetramethylbenzene	20000		ug/kg	600	58.	5
Ethyl ether	ND		ug/kg	600	100	5
trans-1,4-Dichloro-2-butene	ND		ug/kg	1500	430	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	112		70-130
4-Bromofluorobenzene	146	Q	70-130
Dibromofluoromethane	77		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-04
 Client ID: RB13_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:55
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/10/19 15:03
 Analyst: AD
 Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.0	2.8	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.18	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.28	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.32	1
Tetrachloroethene	ND		ug/kg	0.60	0.24	1
Chlorobenzene	ND		ug/kg	0.60	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.8	0.84	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	0.60	0.20	1
Bromodichloromethane	ND		ug/kg	0.60	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.33	1
cis-1,3-Dichloropropene	ND		ug/kg	0.60	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.60	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.60	0.19	1
Bromoform	ND		ug/kg	4.8	0.30	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.60	0.20	1
Benzene	0.21	J	ug/kg	0.60	0.20	1
Toluene	ND		ug/kg	1.2	0.66	1
Ethylbenzene	0.97	J	ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.8	1.1	1
Bromomethane	ND		ug/kg	2.4	0.70	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
Chloroethane	ND		ug/kg	2.4	0.54	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-04

Date Collected: 01/07/19 10:55

Client ID: RB13_33-35

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.60	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.21	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.68	1
o-Xylene	ND		ug/kg	1.2	0.35	1
Xylenes, Total	ND		ug/kg	1.2	0.35	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.4	0.29	1
Styrene	ND		ug/kg	1.2	0.24	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.8	1
Carbon disulfide	ND		ug/kg	12	5.5	1
2-Butanone	ND		ug/kg	12	2.7	1
Vinyl acetate	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.25	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.34	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.60	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.18	1
n-Butylbenzene	0.55	J	ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.18	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.23	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.8	0.20	1
Isopropylbenzene	0.56	J	ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	1.2	J	ug/kg	4.8	0.78	1
Acrylonitrile	ND		ug/kg	4.8	1.4	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-04
Client ID: RB13_33-35
Sample Location: BRONX, NY

Date Collected: 01/07/19 10:55
Date Received: 01/07/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	1.1	J	ug/kg	1.2	0.21	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.39	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.33	1
1,3,5-Trimethylbenzene	0.70	J	ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.40	1
1,4-Dioxane	ND		ug/kg	120	42.	1
p-Diethylbenzene	1.6	J	ug/kg	2.4	0.21	1
p-Ethyltoluene	0.54	J	ug/kg	2.4	0.46	1
1,2,4,5-Tetramethylbenzene	0.86	J	ug/kg	2.4	0.23	1
Ethyl ether	ND		ug/kg	2.4	0.41	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.0	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	78		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	94		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-05
 Client ID: RB14_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:20
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/10/19 15:29
 Analyst: AD
 Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.9	2.7	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.17	1
Chloroform	ND		ug/kg	1.8	0.16	1
Carbon tetrachloride	ND		ug/kg	1.2	0.27	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.31	1
Tetrachloroethene	0.62		ug/kg	0.59	0.23	1
Chlorobenzene	ND		ug/kg	0.59	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.7	0.82	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.30	1
1,1,1-Trichloroethane	ND		ug/kg	0.59	0.20	1
Bromodichloromethane	ND		ug/kg	0.59	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.32	1
cis-1,3-Dichloropropene	ND		ug/kg	0.59	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.59	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.59	0.19	1
Bromoform	ND		ug/kg	4.7	0.29	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.59	0.20	1
Benzene	0.59		ug/kg	0.59	0.20	1
Toluene	0.82	J	ug/kg	1.2	0.64	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.7	1.1	1
Bromomethane	ND		ug/kg	2.4	0.68	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
Chloroethane	ND		ug/kg	2.4	0.53	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.28	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-05

Date Collected: 01/07/19 12:20

Client ID: RB14_0-2

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.59	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.20	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.66	1
o-Xylene	ND		ug/kg	1.2	0.34	1
Xylenes, Total	ND		ug/kg	1.2	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.4	0.28	1
Styrene	ND		ug/kg	1.2	0.23	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	ND		ug/kg	12	5.7	1
Carbon disulfide	ND		ug/kg	12	5.4	1
2-Butanone	ND		ug/kg	12	2.6	1
Vinyl acetate	ND		ug/kg	12	2.5	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.24	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.33	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.59	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.17	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.17	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.22	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.5	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.7	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.7	0.77	1
Acrylonitrile	ND		ug/kg	4.7	1.4	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-05
Client ID: RB14_0-2
Sample Location: BRONX, NY

Date Collected: 01/07/19 12:20
Date Received: 01/07/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.2	0.20	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.38	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.32	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.39	1
1,4-Dioxane	ND		ug/kg	120	41.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.21	1
p-Ethyltoluene	ND		ug/kg	2.4	0.45	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.4	0.22	1
Ethyl ether	ND		ug/kg	2.4	0.40	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.9	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	88		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	90		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-06 D
 Client ID: RB14_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:25
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/10/19 13:18
 Analyst: AD
 Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	750	340	2.5
1,1-Dichloroethane	ND		ug/kg	150	22.	2.5
Chloroform	ND		ug/kg	220	21.	2.5
Carbon tetrachloride	ND		ug/kg	150	34.	2.5
1,2-Dichloropropane	ND		ug/kg	150	19.	2.5
Dibromochloromethane	ND		ug/kg	150	21.	2.5
1,1,2-Trichloroethane	ND		ug/kg	150	40.	2.5
Tetrachloroethene	ND		ug/kg	75	29.	2.5
Chlorobenzene	ND		ug/kg	75	19.	2.5
Trichlorofluoromethane	ND		ug/kg	600	100	2.5
1,2-Dichloroethane	ND		ug/kg	150	38.	2.5
1,1,1-Trichloroethane	ND		ug/kg	75	25.	2.5
Bromodichloromethane	ND		ug/kg	75	16.	2.5
trans-1,3-Dichloropropene	ND		ug/kg	150	41.	2.5
cis-1,3-Dichloropropene	ND		ug/kg	75	24.	2.5
1,3-Dichloropropene, Total	ND		ug/kg	75	24.	2.5
1,1-Dichloropropene	ND		ug/kg	75	24.	2.5
Bromoform	ND		ug/kg	600	37.	2.5
1,1,2,2-Tetrachloroethane	ND		ug/kg	75	25.	2.5
Benzene	ND		ug/kg	75	25.	2.5
Toluene	ND		ug/kg	150	81.	2.5
Ethylbenzene	320		ug/kg	150	21.	2.5
Chloromethane	ND		ug/kg	600	140	2.5
Bromomethane	ND		ug/kg	300	87.	2.5
Vinyl chloride	ND		ug/kg	150	50.	2.5
Chloroethane	ND		ug/kg	300	68.	2.5
1,1-Dichloroethene	ND		ug/kg	150	36.	2.5
trans-1,2-Dichloroethene	ND		ug/kg	220	20.	2.5

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-06 D

Date Collected: 01/07/19 12:25

Client ID: RB14_18-20

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	75	20.	2.5
1,2-Dichlorobenzene	ND		ug/kg	300	22.	2.5
1,3-Dichlorobenzene	ND		ug/kg	300	22.	2.5
1,4-Dichlorobenzene	ND		ug/kg	300	26.	2.5
Methyl tert butyl ether	ND		ug/kg	300	30.	2.5
p/m-Xylene	ND		ug/kg	300	84.	2.5
o-Xylene	ND		ug/kg	150	43.	2.5
Xylenes, Total	ND		ug/kg	150	43.	2.5
cis-1,2-Dichloroethene	ND		ug/kg	150	26.	2.5
1,2-Dichloroethene, Total	ND		ug/kg	150	20.	2.5
Dibromomethane	ND		ug/kg	300	36.	2.5
Styrene	ND		ug/kg	150	29.	2.5
Dichlorodifluoromethane	ND		ug/kg	1500	140	2.5
Acetone	ND		ug/kg	1500	720	2.5
Carbon disulfide	ND		ug/kg	1500	680	2.5
2-Butanone	ND		ug/kg	1500	330	2.5
Vinyl acetate	ND		ug/kg	1500	320	2.5
4-Methyl-2-pentanone	ND		ug/kg	1500	190	2.5
1,2,3-Trichloropropane	ND		ug/kg	300	19.	2.5
2-Hexanone	ND		ug/kg	1500	180	2.5
Bromochloromethane	ND		ug/kg	300	31.	2.5
2,2-Dichloropropane	ND		ug/kg	300	30.	2.5
1,2-Dibromoethane	ND		ug/kg	150	42.	2.5
1,3-Dichloropropane	ND		ug/kg	300	25.	2.5
1,1,1,2-Tetrachloroethane	ND		ug/kg	75	20.	2.5
Bromobenzene	ND		ug/kg	300	22.	2.5
n-Butylbenzene	3200		ug/kg	150	25.	2.5
sec-Butylbenzene	1200		ug/kg	150	22.	2.5
tert-Butylbenzene	110	J	ug/kg	300	18.	2.5
o-Chlorotoluene	ND		ug/kg	300	28.	2.5
p-Chlorotoluene	ND		ug/kg	300	16.	2.5
1,2-Dibromo-3-chloropropane	ND		ug/kg	450	150	2.5
Hexachlorobutadiene	ND		ug/kg	600	25.	2.5
Isopropylbenzene	2400		ug/kg	150	16.	2.5
p-Isopropyltoluene	580		ug/kg	150	16.	2.5
Naphthalene	480	J	ug/kg	600	97.	2.5
Acrylonitrile	ND		ug/kg	600	170	2.5

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-06 D
 Client ID: RB14_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:25
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	7600		ug/kg	150	26.	2.5
1,2,3-Trichlorobenzene	ND		ug/kg	300	48.	2.5
1,2,4-Trichlorobenzene	ND		ug/kg	300	41.	2.5
1,3,5-Trimethylbenzene	200	J	ug/kg	300	29.	2.5
1,2,4-Trimethylbenzene	59	J	ug/kg	300	50.	2.5
1,4-Dioxane	ND		ug/kg	15000	5200	2.5
p-Diethylbenzene	2600		ug/kg	300	26.	2.5
p-Ethyltoluene	150	J	ug/kg	300	57.	2.5
1,2,4,5-Tetramethylbenzene	9700		ug/kg	300	28.	2.5
Ethyl ether	ND		ug/kg	300	51.	2.5
trans-1,4-Dichloro-2-butene	ND		ug/kg	750	210	2.5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	149	Q	70-130
Dibromofluoromethane	92		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-07 D
 Client ID: RB14_23-25
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:30
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/10/19 13:44
 Analyst: AD
 Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	3100	1400	10
1,1-Dichloroethane	ND		ug/kg	620	90.	10
Chloroform	ND		ug/kg	930	87.	10
Carbon tetrachloride	ND		ug/kg	620	140	10
1,2-Dichloropropane	ND		ug/kg	620	78.	10
Dibromochloromethane	ND		ug/kg	620	87.	10
1,1,2-Trichloroethane	ND		ug/kg	620	160	10
Tetrachloroethene	ND		ug/kg	310	120	10
Chlorobenzene	ND		ug/kg	310	79.	10
Trichlorofluoromethane	ND		ug/kg	2500	430	10
1,2-Dichloroethane	ND		ug/kg	620	160	10
1,1,1-Trichloroethane	ND		ug/kg	310	100	10
Bromodichloromethane	ND		ug/kg	310	68.	10
trans-1,3-Dichloropropene	ND		ug/kg	620	170	10
cis-1,3-Dichloropropene	ND		ug/kg	310	98.	10
1,3-Dichloropropene, Total	ND		ug/kg	310	98.	10
1,1-Dichloropropene	ND		ug/kg	310	99.	10
Bromoform	ND		ug/kg	2500	150	10
1,1,2,2-Tetrachloroethane	ND		ug/kg	310	100	10
Benzene	ND		ug/kg	310	100	10
Toluene	ND		ug/kg	620	340	10
Ethylbenzene	2300		ug/kg	620	88.	10
Chloromethane	ND		ug/kg	2500	580	10
Bromomethane	ND		ug/kg	1200	360	10
Vinyl chloride	ND		ug/kg	620	210	10
Chloroethane	ND		ug/kg	1200	280	10
1,1-Dichloroethene	ND		ug/kg	620	150	10
trans-1,2-Dichloroethene	ND		ug/kg	930	85.	10

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-07 D

Date Collected: 01/07/19 12:30

Client ID: RB14_23-25

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	310	85.	10
1,2-Dichlorobenzene	ND		ug/kg	1200	89.	10
1,3-Dichlorobenzene	ND		ug/kg	1200	92.	10
1,4-Dichlorobenzene	ND		ug/kg	1200	110	10
Methyl tert butyl ether	ND		ug/kg	1200	120	10
p/m-Xylene	420	J	ug/kg	1200	350	10
o-Xylene	ND		ug/kg	620	180	10
Xylenes, Total	420	J	ug/kg	620	180	10
cis-1,2-Dichloroethene	ND		ug/kg	620	110	10
1,2-Dichloroethene, Total	ND		ug/kg	620	85.	10
Dibromomethane	ND		ug/kg	1200	150	10
Styrene	ND		ug/kg	620	120	10
Dichlorodifluoromethane	ND		ug/kg	6200	570	10
Acetone	ND		ug/kg	6200	3000	10
Carbon disulfide	ND		ug/kg	6200	2800	10
2-Butanone	ND		ug/kg	6200	1400	10
Vinyl acetate	ND		ug/kg	6200	1300	10
4-Methyl-2-pentanone	ND		ug/kg	6200	790	10
1,2,3-Trichloropropane	1200		ug/kg	1200	79.	10
2-Hexanone	ND		ug/kg	6200	730	10
Bromochloromethane	ND		ug/kg	1200	130	10
2,2-Dichloropropane	ND		ug/kg	1200	120	10
1,2-Dibromoethane	ND		ug/kg	620	170	10
1,3-Dichloropropane	ND		ug/kg	1200	100	10
1,1,1,2-Tetrachloroethane	ND		ug/kg	310	82.	10
Bromobenzene	ND		ug/kg	1200	90.	10
n-Butylbenzene	17000		ug/kg	620	100	10
sec-Butylbenzene	4000		ug/kg	620	91.	10
tert-Butylbenzene	360	J	ug/kg	1200	73.	10
o-Chlorotoluene	ND		ug/kg	1200	120	10
p-Chlorotoluene	ND		ug/kg	1200	67.	10
1,2-Dibromo-3-chloropropane	ND		ug/kg	1900	620	10
Hexachlorobutadiene	ND		ug/kg	2500	100	10
Isopropylbenzene	12000		ug/kg	620	68.	10
p-Isopropyltoluene	2600		ug/kg	620	68.	10
Naphthalene	6300		ug/kg	2500	400	10
Acrylonitrile	ND		ug/kg	2500	710	10

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-07 D
 Client ID: RB14_23-25
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:30
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatle Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	33000		ug/kg	620	110	10
1,2,3-Trichlorobenzene	ND		ug/kg	1200	200	10
1,2,4-Trichlorobenzene	ND		ug/kg	1200	170	10
1,3,5-Trimethylbenzene	23000		ug/kg	1200	120	10
1,2,4-Trimethylbenzene	520	J	ug/kg	1200	210	10
1,4-Dioxane	ND		ug/kg	62000	22000	10
p-Diethylbenzene	7900		ug/kg	1200	110	10
p-Ethyltoluene	2500		ug/kg	1200	240	10
1,2,4,5-Tetramethylbenzene	27000		ug/kg	1200	120	10
Ethyl ether	ND		ug/kg	1200	210	10
trans-1,4-Dichloro-2-butene	ND		ug/kg	3100	880	10

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	87		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	131	Q	70-130
Dibromofluoromethane	90		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-08
 Client ID: RB14_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:35
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/10/19 15:55
 Analyst: AD
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.4	2.0	1
1,1-Dichloroethane	ND		ug/kg	0.89	0.13	1
Chloroform	ND		ug/kg	1.3	0.12	1
Carbon tetrachloride	ND		ug/kg	0.89	0.20	1
1,2-Dichloropropane	ND		ug/kg	0.89	0.11	1
Dibromochloromethane	ND		ug/kg	0.89	0.12	1
1,1,2-Trichloroethane	ND		ug/kg	0.89	0.24	1
Tetrachloroethene	ND		ug/kg	0.44	0.17	1
Chlorobenzene	ND		ug/kg	0.44	0.11	1
Trichlorofluoromethane	ND		ug/kg	3.6	0.62	1
1,2-Dichloroethane	ND		ug/kg	0.89	0.23	1
1,1,1-Trichloroethane	ND		ug/kg	0.44	0.15	1
Bromodichloromethane	ND		ug/kg	0.44	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.89	0.24	1
cis-1,3-Dichloropropene	ND		ug/kg	0.44	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.44	0.14	1
1,1-Dichloropropene	ND		ug/kg	0.44	0.14	1
Bromoform	ND		ug/kg	3.6	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.44	0.15	1
Benzene	ND		ug/kg	0.44	0.15	1
Toluene	ND		ug/kg	0.89	0.48	1
Ethylbenzene	0.17	J	ug/kg	0.89	0.12	1
Chloromethane	ND		ug/kg	3.6	0.83	1
Bromomethane	ND		ug/kg	1.8	0.52	1
Vinyl chloride	ND		ug/kg	0.89	0.30	1
Chloroethane	ND		ug/kg	1.8	0.40	1
1,1-Dichloroethene	ND		ug/kg	0.89	0.21	1
trans-1,2-Dichloroethene	ND		ug/kg	1.3	0.12	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-08

Date Collected: 01/07/19 12:35

Client ID: RB14_33-35

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.44	0.12	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	0.15	1
Methyl tert butyl ether	ND		ug/kg	1.8	0.18	1
p/m-Xylene	ND		ug/kg	1.8	0.50	1
o-Xylene	ND		ug/kg	0.89	0.26	1
Xylenes, Total	ND		ug/kg	0.89	0.26	1
cis-1,2-Dichloroethene	ND		ug/kg	0.89	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	0.89	0.12	1
Dibromomethane	ND		ug/kg	1.8	0.21	1
Styrene	ND		ug/kg	0.89	0.17	1
Dichlorodifluoromethane	ND		ug/kg	8.9	0.82	1
Acetone	11		ug/kg	8.9	4.3	1
Carbon disulfide	ND		ug/kg	8.9	4.0	1
2-Butanone	ND		ug/kg	8.9	2.0	1
Vinyl acetate	ND		ug/kg	8.9	1.9	1
4-Methyl-2-pentanone	ND		ug/kg	8.9	1.1	1
1,2,3-Trichloropropane	ND		ug/kg	1.8	0.11	1
2-Hexanone	ND		ug/kg	8.9	1.0	1
Bromochloromethane	ND		ug/kg	1.8	0.18	1
2,2-Dichloropropane	ND		ug/kg	1.8	0.18	1
1,2-Dibromoethane	ND		ug/kg	0.89	0.25	1
1,3-Dichloropropane	ND		ug/kg	1.8	0.15	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.44	0.12	1
Bromobenzene	ND		ug/kg	1.8	0.13	1
n-Butylbenzene	ND		ug/kg	0.89	0.15	1
sec-Butylbenzene	ND		ug/kg	0.89	0.13	1
tert-Butylbenzene	ND		ug/kg	1.8	0.10	1
o-Chlorotoluene	ND		ug/kg	1.8	0.17	1
p-Chlorotoluene	ND		ug/kg	1.8	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.7	0.89	1
Hexachlorobutadiene	ND		ug/kg	3.6	0.15	1
Isopropylbenzene	ND		ug/kg	0.89	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.89	0.10	1
Naphthalene	0.74	J	ug/kg	3.6	0.58	1
Acrylonitrile	ND		ug/kg	3.6	1.0	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-08
Client ID: RB14_33-35
Sample Location: BRONX, NY

Date Collected: 01/07/19 12:35
Date Received: 01/07/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.89	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	0.29	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	0.24	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	0.30	1
1,4-Dioxane	ND		ug/kg	89	31.	1
p-Diethylbenzene	ND		ug/kg	1.8	0.16	1
p-Ethyltoluene	ND		ug/kg	1.8	0.34	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.8	0.17	1
Ethyl ether	ND		ug/kg	1.8	0.30	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.4	1.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	92		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-09 D
 Client ID: SODUP04_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 00:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/10/19 14:10
 Analyst: AD
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	1200	540	4
1,1-Dichloroethane	ND		ug/kg	240	34.	4
Chloroform	ND		ug/kg	350	33.	4
Carbon tetrachloride	ND		ug/kg	240	54.	4
1,2-Dichloropropane	ND		ug/kg	240	30.	4
Dibromochloromethane	ND		ug/kg	240	33.	4
1,1,2-Trichloroethane	ND		ug/kg	240	63.	4
Tetrachloroethene	ND		ug/kg	120	46.	4
Chlorobenzene	ND		ug/kg	120	30.	4
Trichlorofluoromethane	ND		ug/kg	950	160	4
1,2-Dichloroethane	ND		ug/kg	240	61.	4
1,1,1-Trichloroethane	ND		ug/kg	120	40.	4
Bromodichloromethane	ND		ug/kg	120	26.	4
trans-1,3-Dichloropropene	ND		ug/kg	240	64.	4
cis-1,3-Dichloropropene	ND		ug/kg	120	37.	4
1,3-Dichloropropene, Total	ND		ug/kg	120	37.	4
1,1-Dichloropropene	ND		ug/kg	120	38.	4
Bromoform	ND		ug/kg	950	58.	4
1,1,2,2-Tetrachloroethane	ND		ug/kg	120	39.	4
Benzene	ND		ug/kg	120	39.	4
Toluene	ND		ug/kg	240	130	4
Ethylbenzene	620		ug/kg	240	33.	4
Chloromethane	ND		ug/kg	950	220	4
Bromomethane	ND		ug/kg	470	140	4
Vinyl chloride	ND		ug/kg	240	79.	4
Chloroethane	ND		ug/kg	470	110	4
1,1-Dichloroethene	ND		ug/kg	240	56.	4
trans-1,2-Dichloroethene	ND		ug/kg	350	32.	4

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-09 D

Date Collected: 01/07/19 00:00

Client ID: SODUP04_010719

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	120	32.	4
1,2-Dichlorobenzene	ND		ug/kg	470	34.	4
1,3-Dichlorobenzene	ND		ug/kg	470	35.	4
1,4-Dichlorobenzene	ND		ug/kg	470	40.	4
Methyl tert butyl ether	ND		ug/kg	470	48.	4
p/m-Xylene	ND		ug/kg	470	130	4
o-Xylene	ND		ug/kg	240	69.	4
Xylenes, Total	ND		ug/kg	240	69.	4
cis-1,2-Dichloroethene	ND		ug/kg	240	41.	4
1,2-Dichloroethene, Total	ND		ug/kg	240	32.	4
Dibromomethane	ND		ug/kg	470	56.	4
Styrene	ND		ug/kg	240	46.	4
Dichlorodifluoromethane	ND		ug/kg	2400	220	4
Acetone	ND		ug/kg	2400	1100	4
Carbon disulfide	ND		ug/kg	2400	1100	4
2-Butanone	ND		ug/kg	2400	520	4
Vinyl acetate	ND		ug/kg	2400	510	4
4-Methyl-2-pentanone	ND		ug/kg	2400	300	4
1,2,3-Trichloropropane	ND		ug/kg	470	30.	4
2-Hexanone	ND		ug/kg	2400	280	4
Bromochloromethane	ND		ug/kg	470	48.	4
2,2-Dichloropropane	ND		ug/kg	470	48.	4
1,2-Dibromoethane	ND		ug/kg	240	66.	4
1,3-Dichloropropane	ND		ug/kg	470	40.	4
1,1,1,2-Tetrachloroethane	ND		ug/kg	120	31.	4
Bromobenzene	ND		ug/kg	470	34.	4
n-Butylbenzene	6100		ug/kg	240	40.	4
sec-Butylbenzene	1700		ug/kg	240	34.	4
tert-Butylbenzene	150	J	ug/kg	470	28.	4
o-Chlorotoluene	ND		ug/kg	470	45.	4
p-Chlorotoluene	ND		ug/kg	470	26.	4
1,2-Dibromo-3-chloropropane	ND		ug/kg	710	240	4
Hexachlorobutadiene	ND		ug/kg	950	40.	4
Isopropylbenzene	4600		ug/kg	240	26.	4
p-Isopropyltoluene	1100		ug/kg	240	26.	4
Naphthalene	1800		ug/kg	950	150	4
Acrylonitrile	ND		ug/kg	950	270	4

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-09 D
 Client ID: SODUP04_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 00:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	13000		ug/kg	240	40.	4
1,2,3-Trichlorobenzene	ND		ug/kg	470	76.	4
1,2,4-Trichlorobenzene	ND		ug/kg	470	64.	4
1,3,5-Trimethylbenzene	4800		ug/kg	470	46.	4
1,2,4-Trimethylbenzene	ND		ug/kg	470	79.	4
1,4-Dioxane	ND		ug/kg	24000	8300	4
p-Diethylbenzene	3300		ug/kg	470	42.	4
p-Ethyltoluene	570		ug/kg	470	91.	4
1,2,4,5-Tetramethylbenzene	12000		ug/kg	470	45.	4
Ethyl ether	ND		ug/kg	470	81.	4
trans-1,4-Dichloro-2-butene	ND		ug/kg	1200	340	4

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	82		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	147	Q	70-130
Dibromofluoromethane	87		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-10
 Client ID: SOTB06_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 00:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/08/19 15:00
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-10
 Client ID: SOTB06_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 00:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-10
 Client ID: SOTB06_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 00:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	95		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-11
 Client ID: SOFB03_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 14:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/08/19 15:29
 Analyst: MKS

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-11

Date Collected: 01/07/19 14:00

Client ID: SOFB03_010719

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-11
 Client ID: SOFB03_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 14:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	96		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/08/19 08:40
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 10-11 Batch: WG1195753-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/08/19 08:40
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 10-11 Batch: WG1195753-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/08/19 08:40
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 10-11 Batch: WG1195753-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	95		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/10/19 08:30
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,04-05,08 Batch: WG1196396-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	0.91	J	ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/10/19 08:30
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,04-05,08 Batch: WG1196396-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/10/19 08:30
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,04-05,08 Batch: WG1196396-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	81		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	94		70-130



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/10/19 08:30
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 02-03,06-07,09 Batch: WG1196507-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	46	J	ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/10/19 08:30
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 02-03,06-07,09 Batch: WG1196507-5					
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
 Analytical Date: 01/10/19 08:30
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 02-03,06-07,09 Batch: WG1196507-5					
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	5000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	81		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	94		70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10-11 Batch: WG1195753-3 WG1195753-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	110		100		70-130	10		20
Chloroform	100		100		70-130	0		20
Carbon tetrachloride	86		84		63-132	2		20
1,2-Dichloropropane	110		110		70-130	0		20
Dibromochloromethane	100		110		63-130	10		20
1,1,2-Trichloroethane	110		110		70-130	0		20
Tetrachloroethene	90		90		70-130	0		20
Chlorobenzene	100		100		75-130	0		20
Trichlorofluoromethane	80		78		62-150	3		20
1,2-Dichloroethane	110		100		70-130	10		20
1,1,1-Trichloroethane	93		91		67-130	2		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	100		100		70-130	0		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
1,1-Dichloropropene	92		91		70-130	1		20
Bromoform	100		100		54-136	0		20
1,1,2,2-Tetrachloroethane	100		110		67-130	10		20
Benzene	100		100		70-130	0		20
Toluene	100		100		70-130	0		20
Ethylbenzene	100		100		70-130	0		20
Chloromethane	87		85		64-130	2		20
Bromomethane	54		53		39-139	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10-11 Batch: WG1195753-3 WG1195753-4								
Vinyl chloride	87		86		55-140	1		20
Chloroethane	96		94		55-138	2		20
1,1-Dichloroethene	90		87		61-145	3		20
trans-1,2-Dichloroethene	98		97		70-130	1		20
Trichloroethene	97		97		70-130	0		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	105		105		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	110		110		64-130	0		20
Acrylonitrile	100		100		70-130	0		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	72		69		36-147	4		20
Acetone	120		120		58-148	0		20
Carbon disulfide	91		89		51-130	2		20
2-Butanone	85		74		63-138	14		20
Vinyl acetate	120		120		70-130	0		20
4-Methyl-2-pentanone	100		100		59-130	0		20
2-Hexanone	100		100		57-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10-11 Batch: WG1195753-3 WG1195753-4								
Bromochloromethane	110		100		70-130	10		20
2,2-Dichloropropane	98		96		63-133	2		20
1,2-Dibromoethane	100		110		70-130	10		20
1,3-Dichloropropane	110		100		70-130	10		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	100		96		53-136	4		20
sec-Butylbenzene	97		95		70-130	2		20
tert-Butylbenzene	100		98		70-130	2		20
o-Chlorotoluene	100		100		70-130	0		20
p-Chlorotoluene	110		110		70-130	0		20
1,2-Dibromo-3-chloropropane	87		84		41-144	4		20
Hexachlorobutadiene	96		90		63-130	6		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	100		99		70-130	1		20
Naphthalene	80		80		70-130	0		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	78		79		70-130	1		20
1,2,4-Trichlorobenzene	90		89		70-130	1		20
1,3,5-Trimethylbenzene	110		100		64-130	10		20
1,2,4-Trimethylbenzene	110		110		70-130	0		20
1,4-Dioxane	100		86		56-162	15		20
p-Diethylbenzene	100		98		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 10-11 Batch: WG1195753-3 WG1195753-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	100		100		70-130	0		20
Ethyl ether	110		100		59-134	10		20
trans-1,4-Dichloro-2-butene	92		94		70-130	2		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	101		101		70-130
Toluene-d8	99		99		70-130
4-Bromofluorobenzene	105		104		70-130
Dibromofluoromethane	96		96		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,04-05,08 Batch: WG1196396-3 WG1196396-4								
Methylene chloride	94		100		70-130	6		30
1,1-Dichloroethane	98		110		70-130	12		30
Chloroform	98		97		70-130	1		30
Carbon tetrachloride	89		94		70-130	5		30
1,2-Dichloropropane	95		114		70-130	18		30
Dibromochloromethane	97		105		70-130	8		30
1,1,2-Trichloroethane	104		109		70-130	5		30
Tetrachloroethene	95		105		70-130	10		30
Chlorobenzene	102		107		70-130	5		30
Trichlorofluoromethane	89		95		70-139	7		30
1,2-Dichloroethane	78		78		70-130	0		30
1,1,1-Trichloroethane	90		92		70-130	2		30
Bromodichloromethane	88		104		70-130	17		30
trans-1,3-Dichloropropene	96		102		70-130	6		30
cis-1,3-Dichloropropene	94		106		70-130	12		30
1,1-Dichloropropene	96		100		70-130	4		30
Bromoform	101		103		70-130	2		30
1,1,2,2-Tetrachloroethane	115		108		70-130	6		30
Benzene	98		105		70-130	7		30
Toluene	100		107		70-130	7		30
Ethylbenzene	100		106		70-130	6		30
Chloromethane	104		107		52-130	3		30
Bromomethane	119		122		57-147	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,04-05,08 Batch: WG1196396-3 WG1196396-4								
Vinyl chloride	109		118		67-130	8		30
Chloroethane	111		114		50-151	3		30
1,1-Dichloroethene	100		107		65-135	7		30
trans-1,2-Dichloroethene	100		106		70-130	6		30
Trichloroethene	95		100		70-130	5		30
1,2-Dichlorobenzene	102		108		70-130	6		30
1,3-Dichlorobenzene	105		108		70-130	3		30
1,4-Dichlorobenzene	101		108		70-130	7		30
Methyl tert butyl ether	92		94		66-130	2		30
p/m-Xylene	104		106		70-130	2		30
o-Xylene	105		104		70-130	1		30
cis-1,2-Dichloroethene	105		108		70-130	3		30
Dibromomethane	90		102		70-130	13		30
Styrene	106		105		70-130	1		30
Dichlorodifluoromethane	89		97		30-146	9		30
Acetone	94		96		54-140	2		30
Carbon disulfide	96		102		59-130	6		30
2-Butanone	107		96		70-130	11		30
Vinyl acetate	96		108		70-130	12		30
4-Methyl-2-pentanone	98		101		70-130	3		30
1,2,3-Trichloropropane	103		103		68-130	0		30
2-Hexanone	95		96		70-130	1		30
Bromochloromethane	106		106		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,04-05,08 Batch: WG1196396-3 WG1196396-4								
2,2-Dichloropropane	99		99		70-130	0		30
1,2-Dibromoethane	105		109		70-130	4		30
1,3-Dichloropropane	100		111		69-130	10		30
1,1,1,2-Tetrachloroethane	97		102		70-130	5		30
Bromobenzene	105		110		70-130	5		30
n-Butylbenzene	104		108		70-130	4		30
sec-Butylbenzene	106		112		70-130	6		30
tert-Butylbenzene	106		112		70-130	6		30
o-Chlorotoluene	102		105		70-130	3		30
p-Chlorotoluene	103		106		70-130	3		30
1,2-Dibromo-3-chloropropane	97		104		68-130	7		30
Hexachlorobutadiene	95		105		67-130	10		30
Isopropylbenzene	109		113		70-130	4		30
p-Isopropyltoluene	105		111		70-130	6		30
Naphthalene	104		110		70-130	6		30
Acrylonitrile	101		109		70-130	8		30
n-Propylbenzene	104		110		70-130	6		30
1,2,3-Trichlorobenzene	101		110		70-130	9		30
1,2,4-Trichlorobenzene	104		109		70-130	5		30
1,3,5-Trimethylbenzene	104		110		70-130	6		30
1,2,4-Trimethylbenzene	106		110		70-130	4		30
1,4-Dioxane	86		93		65-136	8		30
p-Diethylbenzene	108		113		70-130	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,04-05,08 Batch: WG1196396-3 WG1196396-4								
p-Ethyltoluene	109		112		70-130	3		30
1,2,4,5-Tetramethylbenzene	103		108		70-130	5		30
Ethyl ether	103		102		67-130	1		30
trans-1,4-Dichloro-2-butene	98		93		70-130	5		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	78		79		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	103		102		70-130
Dibromofluoromethane	95		94		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02-03,06-07,09 Batch: WG1196507-3 WG1196507-4								
Methylene chloride	94		100		70-130	6		30
1,1-Dichloroethane	98		110		70-130	12		30
Chloroform	98		97		70-130	1		30
Carbon tetrachloride	89		94		70-130	5		30
1,2-Dichloropropane	95		114		70-130	18		30
Dibromochloromethane	97		105		70-130	8		30
1,1,2-Trichloroethane	104		109		70-130	5		30
Tetrachloroethene	95		105		70-130	10		30
Chlorobenzene	102		107		70-130	5		30
Trichlorofluoromethane	89		95		70-139	7		30
1,2-Dichloroethane	78		78		70-130	0		30
1,1,1-Trichloroethane	90		92		70-130	2		30
Bromodichloromethane	88		104		70-130	17		30
trans-1,3-Dichloropropene	96		102		70-130	6		30
cis-1,3-Dichloropropene	94		106		70-130	12		30
1,1-Dichloropropene	96		100		70-130	4		30
Bromoform	101		103		70-130	2		30
1,1,2,2-Tetrachloroethane	115		108		70-130	6		30
Benzene	98		105		70-130	7		30
Toluene	100		107		70-130	7		30
Ethylbenzene	100		106		70-130	6		30
Chloromethane	104		107		52-130	3		30
Bromomethane	119		122		57-147	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02-03,06-07,09 Batch: WG1196507-3 WG1196507-4								
Vinyl chloride	109		118		67-130	8		30
Chloroethane	111		114		50-151	3		30
1,1-Dichloroethene	100		107		65-135	7		30
trans-1,2-Dichloroethene	100		106		70-130	6		30
Trichloroethene	95		100		70-130	5		30
1,2-Dichlorobenzene	102		108		70-130	6		30
1,3-Dichlorobenzene	105		108		70-130	3		30
1,4-Dichlorobenzene	101		108		70-130	7		30
Methyl tert butyl ether	92		94		66-130	2		30
p/m-Xylene	104		106		70-130	2		30
o-Xylene	105		104		70-130	1		30
cis-1,2-Dichloroethene	105		108		70-130	3		30
Dibromomethane	90		102		70-130	13		30
Styrene	106		105		70-130	1		30
Dichlorodifluoromethane	89		97		30-146	9		30
Acetone	94		96		54-140	2		30
Carbon disulfide	96		102		59-130	6		30
2-Butanone	107		96		70-130	11		30
Vinyl acetate	96		108		70-130	12		30
4-Methyl-2-pentanone	98		101		70-130	3		30
1,2,3-Trichloropropane	103		103		68-130	0		30
2-Hexanone	95		96		70-130	1		30
Bromochloromethane	106		106		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS		LCSD		%Recovery		RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02-03,06-07,09 Batch: WG1196507-3 WG1196507-4								
2,2-Dichloropropane	99		99		70-130	0		30
1,2-Dibromoethane	105		109		70-130	4		30
1,3-Dichloropropane	100		111		69-130	10		30
1,1,1,2-Tetrachloroethane	97		102		70-130	5		30
Bromobenzene	105		110		70-130	5		30
n-Butylbenzene	104		108		70-130	4		30
sec-Butylbenzene	106		112		70-130	6		30
tert-Butylbenzene	106		112		70-130	6		30
o-Chlorotoluene	102		105		70-130	3		30
p-Chlorotoluene	103		106		70-130	3		30
1,2-Dibromo-3-chloropropane	97		104		68-130	7		30
Hexachlorobutadiene	95		105		67-130	10		30
Isopropylbenzene	109		113		70-130	4		30
p-Isopropyltoluene	105		111		70-130	6		30
Naphthalene	104		110		70-130	6		30
Acrylonitrile	101		109		70-130	8		30
n-Propylbenzene	104		110		70-130	6		30
1,2,3-Trichlorobenzene	101		110		70-130	9		30
1,2,4-Trichlorobenzene	104		109		70-130	5		30
1,3,5-Trimethylbenzene	104		110		70-130	6		30
1,2,4-Trimethylbenzene	106		110		70-130	4		30
1,4-Dioxane	86		93		65-136	8		30
p-Diethylbenzene	108		113		70-130	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02-03,06-07,09 Batch: WG1196507-3 WG1196507-4								
p-Ethyltoluene	109		112		70-130	3		30
1,2,4,5-Tetramethylbenzene	103		108		70-130	5		30
Ethyl ether	103		102		67-130	1		30
trans-1,4-Dichloro-2-butene	98		93		70-130	5		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	78		79		70-130
Toluene-d8	101		101		70-130
4-Bromofluorobenzene	103		102		70-130
Dibromofluoromethane	95		94		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02-03,06-07,09 QC Batch ID: WG1196507-6 WG1196507-7 QC Sample: L1900707-03 Client ID: RB13_22-24												
Methylene chloride	ND	30000	27000	88		27000	91		70-130	3		30
1,1-Dichloroethane	ND	30000	28000	93		28000	94		70-130	1		30
Chloroform	ND	30000	25000	84		26000	86		70-130	2		30
Carbon tetrachloride	ND	30000	24000	79		24000	79		70-130	1		30
1,2-Dichloropropane	ND	30000	29000	96		30000	100		70-130	4		30
Dibromochloromethane	ND	30000	30000	100		30000	100		70-130	0		30
1,1,2-Trichloroethane	ND	30000	100000E	347	Q	88000	294	Q	70-130	16		30
Tetrachloroethene	ND	30000	26000	85		24000	80		70-130	7		30
Chlorobenzene	ND	30000	27000	91		26000	86		70-130	6		30
Trichlorofluoromethane	ND	30000	25000	83		25000	84		70-139	1		30
1,2-Dichloroethane	ND	30000	24000	79		24000	79		70-130	0		30
1,1,1-Trichloroethane	ND	30000	25000	82		25000	82		70-130	0		30
Bromodichloromethane	ND	30000	26000	86		26000	87		70-130	2		30
trans-1,3-Dichloropropene	ND	30000	31000	103		31000	102		70-130	1		30
cis-1,3-Dichloropropene	ND	30000	27000	91		27000	91		70-130	1		30
1,1-Dichloropropene	ND	30000	26000	88		26000	86		70-130	2		30
Bromoform	ND	30000	31000	104		31000	102		70-130	2		30
1,1,2,2-Tetrachloroethane	ND	30000	37000	124		35000	118		70-130	6		30
Benzene	1400	30000	28000	90		28000	89		70-130	1		30
Toluene	490	30000	29000	96		28000	92		70-130	4		30
Ethylbenzene	9700	30000	35000	83		31000	71		70-130	11		30
Chloromethane	ND	30000	32000	108		34000	112		52-130	4		30
Bromomethane	ND	30000	33000	109		35000	116		57-147	6		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02-03,06-07,09 QC Batch ID: WG1196507-6 WG1196507-7 QC Sample: L1900707-03 Client ID: RB13_22-24												
Vinyl chloride	ND	30000	33000	110		34000	113		67-130	3		30
Chloroethane	ND	30000	24000	81		33000	110		50-151	30		30
1,1-Dichloroethene	ND	30000	28000	95		29000	95		65-135	1		30
trans-1,2-Dichloroethene	ND	30000	28000	92		28000	92		70-130	0		30
Trichloroethene	ND	30000	26000	86		25000	83		70-130	4		30
1,2-Dichlorobenzene	ND	30000	25000	83		23000	77		70-130	7		30
1,3-Dichlorobenzene	ND	30000	24000	79		21000	71		70-130	10		30
1,4-Dichlorobenzene	ND	30000	23000	76		21000	68	Q	70-130	11		30
Methyl tert butyl ether	ND	30000	28000	92		28000	95		66-130	2		30
p/m-Xylene	4000	60000	54000	84		49000	75		70-130	10		30
o-Xylene	1200	60000	53000	86		49000	80		70-130	6		30
cis-1,2-Dichloroethene	ND	30000	27000	91		28000	92		70-130	1		30
Dibromomethane	ND	30000	27000	89		27000	89		70-130	0		30
Styrene	ND	60000	54000	91		52000	86		70-130	5		30
Dichlorodifluoromethane	ND	30000	28000	95		29000	96		30-146	2		30
Acetone	ND	30000	27000	90		27000	90		54-140	0		30
Carbon disulfide	ND	30000	27000	91		27000	90		59-130	1		30
2-Butanone	ND	30000	76000	253	Q	40000	133	Q	70-130	62	Q	30
Vinyl acetate	ND	30000	31000	103		32000	105		70-130	3		30
4-Methyl-2-pentanone	ND	30000	41000	137	Q	40000	132	Q	70-130	4		30
1,2,3-Trichloropropane	ND	30000	33000	111		32000	108		68-130	3		30
2-Hexanone	ND	30000	36000	121		37000	122		70-130	1		30
Bromochloromethane	ND	30000	26000	88		27000	90		70-130	2		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02-03,06-07,09 QC Batch ID: WG1196507-6 WG1196507-7 QC Sample: L1900707-03 Client ID: RB13_22-24												
2,2-Dichloropropane	ND	30000	26000	87		26000	87		70-130	0		30
1,2-Dibromoethane	ND	30000	33000	109		32000	108		70-130	1		30
1,3-Dichloropropane	ND	30000	32000	107		32000	107		69-130	0		30
1,1,1,2-Tetrachloroethane	ND	30000	29000	95		28000	94		70-130	2		30
Bromobenzene	ND	30000	27000	91		25000	85		70-130	7		30
n-Butylbenzene	11000	30000	28000	55	Q	22000	37	Q	70-130	22		30
sec-Butylbenzene	2900	30000	25000	74		21000	62	Q	70-130	16		30
tert-Butylbenzene	280J	30000	24000	80		21000	71		70-130	12		30
o-Chlorotoluene	ND	30000	25000	84		23000	76		70-130	11		30
p-Chlorotoluene	ND	30000	24000	80		22000	72		70-130	11		30
1,2-Dibromo-3-chloropropane	ND	30000	30000	101		30000	101		68-130	0		30
Hexachlorobutadiene	ND	30000	19000	62	Q	17000	56	Q	67-130	10		30
Isopropylbenzene	12000	30000	36000	79		31000	62	Q	70-130	15		30
p-Isopropyltoluene	2300	30000	24000	73		20000	60	Q	70-130	17		30
Naphthalene	25000	30000	56000	104		52000	88		70-130	9		30
Acrylonitrile	ND	30000	45000	148	Q	41000	137	Q	70-130	8		30
n-Propylbenzene	30000	30000	47000	55	Q	37000	24	Q	70-130	22		30
1,2,3-Trichlorobenzene	ND	30000	25000	83		23000	76		70-130	8		30
1,2,4-Trichlorobenzene	ND	30000	23000	78		22000	72		70-130	8		30
1,3,5-Trimethylbenzene	6700	30000	29000	74		25000	61	Q	70-130	14		30
1,2,4-Trimethylbenzene	300J	30000	24000	80		22000	72		70-130	11		30
1,4-Dioxane	ND	1500000	1400000	90		1300000	89		65-136	1		30
p-Diethylbenzene	5800	30000	27000	69	Q	22000	53	Q	70-130	20		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02-03,06-07,09 QC Batch ID: WG1196507-6 WG1196507-7 QC Sample: L1900707-03 Client ID: RB13_22-24												
p-Ethyltoluene	6400	30000	28000	72		24000	58	Q	70-130	16		30
1,2,4,5-Tetramethylbenzene	20000	30000	38000	58	Q	32000	39	Q	70-130	16		30
Ethyl ether	ND	30000	29000	97		30000	99		67-130	2		30
trans-1,4-Dichloro-2-butene	ND	30000	29000	98		29000	95		70-130	3		30

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
1,2-Dichloroethane-d4	91		88		70-130
4-Bromofluorobenzene	145	Q	134	Q	70-130
Dibromofluoromethane	80		81		70-130
Toluene-d8	112		111		70-130

SEMIVOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-01
 Client ID: RB13_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:45
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/10/19 02:10
 Analyst: SZ
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 08:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	300		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	160	J	ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-01

Date Collected: 01/07/19 10:45

Client ID: RB13_0-2

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	160		ug/kg	120	22.	1
Benzo(a)pyrene	180		ug/kg	150	47.	1
Benzo(b)fluoranthene	320		ug/kg	120	32.	1
Benzo(k)fluoranthene	98	J	ug/kg	120	31.	1
Chrysene	240		ug/kg	120	20.	1
Acenaphthylene	92	J	ug/kg	150	30.	1
Anthracene	61	J	ug/kg	120	37.	1
Benzo(ghi)perylene	240		ug/kg	150	22.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	190		ug/kg	120	23.	1
Dibenzo(a,h)anthracene	50	J	ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	200		ug/kg	150	27.	1
Pyrene	340		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	44.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	79.	1
Dibenzofuran	19	J	ug/kg	190	18.	1
2-Methylnaphthalene	92	J	ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	67	J	ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	63.	1
2-Nitrophenol	ND		ug/kg	410	72.	1
4-Nitrophenol	ND		ug/kg	270	78.	1
2,4-Dinitrophenol	ND		ug/kg	920	89.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	92.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-01
 Client ID: RB13_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:45
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	620	190	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	34	J	ug/kg	190	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	78		30-120
2,4,6-Tribromophenol	90		10-136
4-Terphenyl-d14	53		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-02
 Client ID: RB13_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 11:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/10/19 02:35
 Analyst: SZ
 Percent Solids: 84%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 08:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	52	J	ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	35.	1
1,3-Dichlorobenzene	ND		ug/kg	190	34.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	52.	1
2,4-Dinitrotoluene	ND		ug/kg	190	39.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	25.	1
Naphthalene	940		ug/kg	190	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	49.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	66.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-02

Date Collected: 01/07/19 11:00

Client ID: RB13_18-20

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	41.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	22	J	ug/kg	190	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	27.	1
Pyrene	ND		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	38.	1
3-Nitroaniline	ND		ug/kg	190	37.	1
4-Nitroaniline	ND		ug/kg	190	81.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	550		ug/kg	230	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
p-Chloro-m-cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	73.	1
4-Nitrophenol	ND		ug/kg	270	80.	1
2,4-Dinitrophenol	ND		ug/kg	940	91.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	94.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-02
 Client ID: RB13_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 11:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	630	200	1
Benzyl Alcohol	ND		ug/kg	190	60.	1
Carbazole	23	J	ug/kg	190	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		25-120
Phenol-d6	74		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	66		30-120
2,4,6-Tribromophenol	78		10-136
4-Terphenyl-d14	56		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-03 D
 Client ID: RB13_22-24
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:50
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/10/19 19:37
 Analyst: RC
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 08:25

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	790	100	5
1,2,4-Trichlorobenzene	ND		ug/kg	990	110	5
Hexachlorobenzene	ND		ug/kg	590	110	5
Bis(2-chloroethyl)ether	ND		ug/kg	890	130	5
2-Chloronaphthalene	ND		ug/kg	990	98.	5
1,2-Dichlorobenzene	ND		ug/kg	990	180	5
1,3-Dichlorobenzene	ND		ug/kg	990	170	5
1,4-Dichlorobenzene	ND		ug/kg	990	170	5
3,3'-Dichlorobenzidine	ND		ug/kg	990	260	5
2,4-Dinitrotoluene	ND		ug/kg	990	200	5
2,6-Dinitrotoluene	ND		ug/kg	990	170	5
Fluoranthene	280	J	ug/kg	590	110	5
4-Chlorophenyl phenyl ether	ND		ug/kg	990	100	5
4-Bromophenyl phenyl ether	ND		ug/kg	990	150	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1200	170	5
Bis(2-chloroethoxy)methane	ND		ug/kg	1100	99.	5
Hexachlorobutadiene	ND		ug/kg	990	140	5
Hexachlorocyclopentadiene	ND		ug/kg	2800	900	5
Hexachloroethane	ND		ug/kg	790	160	5
Isophorone	ND		ug/kg	890	130	5
Naphthalene	22000		ug/kg	990	120	5
Nitrobenzene	ND		ug/kg	890	150	5
NDPA/DPA	ND		ug/kg	790	110	5
n-Nitrosodi-n-propylamine	ND		ug/kg	990	150	5
Bis(2-ethylhexyl)phthalate	ND		ug/kg	990	340	5
Butyl benzyl phthalate	ND		ug/kg	990	250	5
Di-n-butylphthalate	ND		ug/kg	990	190	5
Di-n-octylphthalate	ND		ug/kg	990	340	5

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-03 D

Date Collected: 01/07/19 10:50

Client ID: RB13_22-24

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	990	92.	5
Dimethyl phthalate	ND		ug/kg	990	210	5
Benzo(a)anthracene	160	J	ug/kg	590	110	5
Benzo(a)pyrene	ND		ug/kg	790	240	5
Benzo(b)fluoranthene	ND		ug/kg	590	170	5
Benzo(k)fluoranthene	ND		ug/kg	590	160	5
Chrysene	140	J	ug/kg	590	100	5
Acenaphthylene	ND		ug/kg	790	150	5
Anthracene	ND		ug/kg	590	190	5
Benzo(ghi)perylene	120	J	ug/kg	790	120	5
Fluorene	170	J	ug/kg	990	96.	5
Phenanthrene	320	J	ug/kg	590	120	5
Dibenzo(a,h)anthracene	ND		ug/kg	590	110	5
Indeno(1,2,3-cd)pyrene	ND		ug/kg	790	140	5
Pyrene	330	J	ug/kg	590	98.	5
Biphenyl	460	J	ug/kg	2200	230	5
4-Chloroaniline	ND		ug/kg	990	180	5
2-Nitroaniline	ND		ug/kg	990	190	5
3-Nitroaniline	ND		ug/kg	990	190	5
4-Nitroaniline	ND		ug/kg	990	410	5
Dibenzofuran	ND		ug/kg	990	94.	5
2-Methylnaphthalene	16000		ug/kg	1200	120	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	990	100	5
Acetophenone	ND		ug/kg	990	120	5
2,4,6-Trichlorophenol	ND		ug/kg	590	190	5
p-Chloro-m-cresol	ND		ug/kg	990	150	5
2-Chlorophenol	ND		ug/kg	990	120	5
2,4-Dichlorophenol	ND		ug/kg	890	160	5
2,4-Dimethylphenol	ND		ug/kg	990	330	5
2-Nitrophenol	ND		ug/kg	2100	370	5
4-Nitrophenol	ND		ug/kg	1400	400	5
2,4-Dinitrophenol	ND		ug/kg	4800	460	5
4,6-Dinitro-o-cresol	ND		ug/kg	2600	480	5
Pentachlorophenol	ND		ug/kg	790	220	5
Phenol	ND		ug/kg	990	150	5
2-Methylphenol	ND		ug/kg	990	150	5
3-Methylphenol/4-Methylphenol	ND		ug/kg	1400	160	5

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-03 D
 Client ID: RB13_22-24
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:50
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	990	190	5
Benzoic Acid	ND		ug/kg	3200	1000	5
Benzyl Alcohol	ND		ug/kg	990	300	5
Carbazole	ND		ug/kg	990	96.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	77		25-120
Phenol-d6	82		10-120
Nitrobenzene-d5	239	Q	23-120
2-Fluorobiphenyl	91		30-120
2,4,6-Tribromophenol	101		10-136
4-Terphenyl-d14	84		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-04
 Client ID: RB13_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:55
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/10/19 00:02
 Analyst: SZ
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 08:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	33.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	ND		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	24.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	63.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	62.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-04

Date Collected: 01/07/19 10:55

Client ID: RB13_33-35

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	ND		ug/kg	110	20.	1
Benzo(a)pyrene	ND		ug/kg	140	44.	1
Benzo(b)fluoranthene	ND		ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	36.	1
Benzo(ghi)perylene	ND		ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	25.	1
Pyrene	ND		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	42.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	75.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	22.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	60.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	250	74.	1
2,4-Dinitrophenol	ND		ug/kg	870	85.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	87.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	28.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-04
 Client ID: RB13_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:55
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	590	180	1
Benzyl Alcohol	ND		ug/kg	180	56.	1
Carbazole	ND		ug/kg	180	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	84		25-120
Phenol-d6	89		10-120
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	75		30-120
2,4,6-Tribromophenol	101		10-136
4-Terphenyl-d14	77		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-05
 Client ID: RB14_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:20
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/10/19 00:28
 Analyst: SZ
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 08:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	52	J	ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	33.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	1100		ug/kg	110	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	510		ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	140	J	ug/kg	190	66.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-05

Date Collected: 01/07/19 12:20

Client ID: RB14_0-2

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	500		ug/kg	110	22.	1
Benzo(a)pyrene	650		ug/kg	150	47.	1
Benzo(b)fluoranthene	720		ug/kg	110	32.	1
Benzo(k)fluoranthene	200		ug/kg	110	31.	1
Chrysene	530		ug/kg	110	20.	1
Acenaphthylene	100	J	ug/kg	150	30.	1
Anthracene	280		ug/kg	110	37.	1
Benzo(ghi)perylene	590		ug/kg	150	22.	1
Fluorene	82	J	ug/kg	190	18.	1
Phenanthrene	870		ug/kg	110	23.	1
Dibenzo(a,h)anthracene	92	J	ug/kg	110	22.	1
Indeno(1,2,3-cd)pyrene	540		ug/kg	150	27.	1
Pyrene	1100		ug/kg	110	19.	1
Biphenyl	ND		ug/kg	440	44.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	79.	1
Dibenzofuran	57	J	ug/kg	190	18.	1
2-Methylnaphthalene	210	J	ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	390		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	28.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	63.	1
2-Nitrophenol	ND		ug/kg	410	72.	1
4-Nitrophenol	ND		ug/kg	270	78.	1
2,4-Dinitrophenol	ND		ug/kg	920	89.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	92.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-05
 Client ID: RB14_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:20
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	620	190	1
Benzyl Alcohol	ND		ug/kg	190	58.	1
Carbazole	110	J	ug/kg	190	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		25-120
Phenol-d6	63		10-120
Nitrobenzene-d5	72		23-120
2-Fluorobiphenyl	66		30-120
2,4,6-Tribromophenol	57		10-136
4-Terphenyl-d14	52		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-06
 Client ID: RB14_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:25
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/10/19 00:54
 Analyst: SZ
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 08:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	34.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	38.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	49	J	ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	120	J	ug/kg	190	23.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	48.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	65.	1

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-06

Date Collected: 01/07/19 12:25

Client ID: RB14_18-20

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	150	47.	1
Benzo(b)fluoranthene	ND		ug/kg	120	32.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	150	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	150	23.	1
Fluorene	19	J	ug/kg	190	19.	1
Phenanthrene	45	J	ug/kg	120	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	27.	1
Pyrene	44	J	ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	80.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	200	J	ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	72.	1
4-Nitrophenol	ND		ug/kg	270	78.	1
2,4-Dinitrophenol	ND		ug/kg	920	90.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	92.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-06
 Client ID: RB14_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:25
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	620	190	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	ND		ug/kg	190	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		25-120
Phenol-d6	78		10-120
Nitrobenzene-d5	80		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	84		10-136
4-Terphenyl-d14	57		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-07 D
 Client ID: RB14_23-25
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:30
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/12/19 01:29
 Analyst: EK
 Percent Solids: 82%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 08:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	790	100	5
1,2,4-Trichlorobenzene	ND		ug/kg	980	110	5
Hexachlorobenzene	ND		ug/kg	590	110	5
Bis(2-chloroethyl)ether	ND		ug/kg	880	130	5
2-Chloronaphthalene	ND		ug/kg	980	98.	5
1,2-Dichlorobenzene	ND		ug/kg	980	180	5
1,3-Dichlorobenzene	ND		ug/kg	980	170	5
1,4-Dichlorobenzene	ND		ug/kg	980	170	5
3,3'-Dichlorobenzidine	ND		ug/kg	980	260	5
2,4-Dinitrotoluene	ND		ug/kg	980	200	5
2,6-Dinitrotoluene	ND		ug/kg	980	170	5
Fluoranthene	250	J	ug/kg	590	110	5
4-Chlorophenyl phenyl ether	ND		ug/kg	980	100	5
4-Bromophenyl phenyl ether	ND		ug/kg	980	150	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1200	170	5
Bis(2-chloroethoxy)methane	ND		ug/kg	1100	98.	5
Hexachlorobutadiene	ND		ug/kg	980	140	5
Hexachlorocyclopentadiene	ND		ug/kg	2800	890	5
Hexachloroethane	ND		ug/kg	790	160	5
Isophorone	ND		ug/kg	880	130	5
Naphthalene	9400		ug/kg	980	120	5
Nitrobenzene	ND		ug/kg	880	140	5
NDPA/DPA	ND		ug/kg	790	110	5
n-Nitrosodi-n-propylamine	ND		ug/kg	980	150	5
Bis(2-ethylhexyl)phthalate	ND		ug/kg	980	340	5
Butyl benzyl phthalate	ND		ug/kg	980	250	5
Di-n-butylphthalate	ND		ug/kg	980	190	5
Di-n-octylphthalate	ND		ug/kg	980	330	5

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-07 D

Date Collected: 01/07/19 12:30

Client ID: RB14_23-25

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	980	91.	5
Dimethyl phthalate	ND		ug/kg	980	210	5
Benzo(a)anthracene	120	J	ug/kg	590	110	5
Benzo(a)pyrene	ND		ug/kg	790	240	5
Benzo(b)fluoranthene	ND		ug/kg	590	160	5
Benzo(k)fluoranthene	ND		ug/kg	590	160	5
Chrysene	ND		ug/kg	590	100	5
Acenaphthylene	ND		ug/kg	790	150	5
Anthracene	ND		ug/kg	590	190	5
Benzo(ghi)perylene	ND		ug/kg	790	120	5
Fluorene	ND		ug/kg	980	96.	5
Phenanthrene	140	J	ug/kg	590	120	5
Dibenzo(a,h)anthracene	ND		ug/kg	590	110	5
Indeno(1,2,3-cd)pyrene	ND		ug/kg	790	140	5
Pyrene	240	J	ug/kg	590	98.	5
Biphenyl	ND		ug/kg	2200	230	5
4-Chloroaniline	ND		ug/kg	980	180	5
2-Nitroaniline	ND		ug/kg	980	190	5
3-Nitroaniline	ND		ug/kg	980	180	5
4-Nitroaniline	ND		ug/kg	980	410	5
Dibenzofuran	ND		ug/kg	980	93.	5
2-Methylnaphthalene	12000		ug/kg	1200	120	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	980	100	5
Acetophenone	ND		ug/kg	980	120	5
2,4,6-Trichlorophenol	ND		ug/kg	590	190	5
p-Chloro-m-cresol	ND		ug/kg	980	150	5
2-Chlorophenol	ND		ug/kg	980	120	5
2,4-Dichlorophenol	ND		ug/kg	880	160	5
2,4-Dimethylphenol	ND		ug/kg	980	320	5
2-Nitrophenol	ND		ug/kg	2100	370	5
4-Nitrophenol	ND		ug/kg	1400	400	5
2,4-Dinitrophenol	ND		ug/kg	4700	460	5
4,6-Dinitro-o-cresol	ND		ug/kg	2600	470	5
Pentachlorophenol	ND		ug/kg	790	220	5
Phenol	ND		ug/kg	980	150	5
2-Methylphenol	ND		ug/kg	980	150	5
3-Methylphenol/4-Methylphenol	ND		ug/kg	1400	150	5

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-07 D
 Client ID: RB14_23-25
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:30
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	980	190	5
Benzoic Acid	ND		ug/kg	3200	990	5
Benzyl Alcohol	ND		ug/kg	980	300	5
Carbazole	ND		ug/kg	980	96.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	77		25-120
Phenol-d6	74		10-120
Nitrobenzene-d5	268	Q	23-120
2-Fluorobiphenyl	85		30-120
2,4,6-Tribromophenol	66		10-136
4-Terphenyl-d14	67		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-08
 Client ID: RB14_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:35
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/11/19 12:26
 Analyst: JG
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 08:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	ND		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	24.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	63.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	62.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-08

Date Collected: 01/07/19 12:35

Client ID: RB14_33-35

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	ND		ug/kg	110	20.	1
Benzo(a)pyrene	ND		ug/kg	140	44.	1
Benzo(b)fluoranthene	ND		ug/kg	110	30.	1
Benzo(k)fluoranthene	ND		ug/kg	110	29.	1
Chrysene	ND		ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	ND		ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	140	25.	1
Pyrene	ND		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	42.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	75.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	60.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	250	74.	1
2,4-Dinitrophenol	ND		ug/kg	870	84.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	87.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-08
 Client ID: RB14_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:35
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	590	180	1
Benzyl Alcohol	ND		ug/kg	180	56.	1
Carbazole	ND		ug/kg	180	18.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	77		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	97		10-136
4-Terphenyl-d14	72		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-09
 Client ID: SODUP04_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 00:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/11/19 12:50
 Analyst: JG
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 08:26

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	140	J	ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-09
 Client ID: SODUP04_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 00:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	180	J	ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	66.	1
2-Nitrophenol	ND		ug/kg	430	75.	1
4-Nitrophenol	ND		ug/kg	280	81.	1
2,4-Dinitrophenol	ND		ug/kg	950	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	95.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-09
Client ID: SODUP04_010719
Sample Location: BRONX, NY

Date Collected: 01/07/19 00:00
Date Received: 01/07/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		25-120
Phenol-d6	65		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	81		30-120
2,4,6-Tribromophenol	76		10-136
4-Terphenyl-d14	66		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-11
 Client ID: SOFB03_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 14:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D
 Analytical Date: 01/09/19 19:09
 Analyst: SZ

Extraction Method: EPA 3510C
 Extraction Date: 01/08/19 10:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Isophorone	ND		ug/l	5.0	1.2	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-11

Date Collected: 01/07/19 14:00

Client ID: SOFB03_010719

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Dibenzofuran	ND		ug/l	2.0	0.50	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		21-120
Phenol-d6	55		10-120
Nitrobenzene-d5	79		23-120
2-Fluorobiphenyl	76		15-120
2,4,6-Tribromophenol	47		10-120
4-Terphenyl-d14	73		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-11
 Client ID: SOFB03_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 14:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8270D-SIM
 Analytical Date: 01/09/19 21:03
 Analyst: CB

Extraction Method: EPA 3510C
 Extraction Date: 01/08/19 10:49

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.10	0.01	1
2-Chloronaphthalene	ND		ug/l	0.20	0.02	1
Fluoranthene	ND		ug/l	0.10	0.02	1
Hexachlorobutadiene	ND		ug/l	0.50	0.05	1
Naphthalene	ND		ug/l	0.10	0.05	1
Benzo(a)anthracene	ND		ug/l	0.10	0.02	1
Benzo(a)pyrene	ND		ug/l	0.10	0.02	1
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01	1
Benzo(k)fluoranthene	ND		ug/l	0.10	0.01	1
Chrysene	ND		ug/l	0.10	0.01	1
Acenaphthylene	ND		ug/l	0.10	0.01	1
Anthracene	ND		ug/l	0.10	0.01	1
Benzo(ghi)perylene	ND		ug/l	0.10	0.01	1
Fluorene	ND		ug/l	0.10	0.01	1
Phenanthrene	ND		ug/l	0.10	0.02	1
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01	1
Pyrene	ND		ug/l	0.10	0.02	1
2-Methylnaphthalene	ND		ug/l	0.10	0.02	1
Pentachlorophenol	ND		ug/l	0.80	0.01	1
Hexachlorobenzene	ND		ug/l	0.80	0.01	1
Hexachloroethane	ND		ug/l	0.80	0.06	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-11
 Client ID: SOFB03_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 14:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	49		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	82		23-120
2-Fluorobiphenyl	84		15-120
2,4,6-Tribromophenol	57		10-120
4-Terphenyl-d14	88		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/09/19 21:29
Analyst: SZ

Extraction Method: EPA 3546
Extraction Date: 01/08/19 08:25

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1195621-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	22.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	26.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	42.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/09/19 21:29
Analyst: SZ

Extraction Method: EPA 3546
Extraction Date: 01/08/19 08:25

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1195621-1					
Dimethyl phthalate	ND		ug/kg	160	35.
Benzo(a)anthracene	ND		ug/kg	99	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	69.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	25.
2-Chlorophenol	ND		ug/kg	160	20.
2,4-Dichlorophenol	ND		ug/kg	150	27.
2,4-Dimethylphenol	ND		ug/kg	160	55.
2-Nitrophenol	ND		ug/kg	360	62.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D
 Analytical Date: 01/09/19 21:29
 Analyst: SZ

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 08:25

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1195621-1					
4-Nitrophenol	ND		ug/kg	230	68.
2,4-Dinitrophenol	ND		ug/kg	800	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	80.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Benzoic Acid	ND		ug/kg	540	170
Benzyl Alcohol	ND		ug/kg	160	51.
Carbazole	ND		ug/kg	160	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	91		25-120
Phenol-d6	98		10-120
Nitrobenzene-d5	97		23-120
2-Fluorobiphenyl	89		30-120
2,4,6-Tribromophenol	104		10-136
4-Terphenyl-d14	81		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/09/19 16:51
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 01/08/19 10:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1195687-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/09/19 16:51
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 01/08/19 10:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1195687-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 01/09/19 16:51
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 01/08/19 10:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1195687-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		21-120
Phenol-d6	52		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	82		15-120
2,4,6-Tribromophenol	71		10-120
4-Terphenyl-d14	79		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 01/09/19 14:57
Analyst: CB

Extraction Method: EPA 3510C
Extraction Date: 01/08/19 10:51

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 11 Batch: WG1195689-1					
Acenaphthene	ND		ug/l	0.10	0.01
2-Chloronaphthalene	ND		ug/l	0.20	0.02
Fluoranthene	0.02	J	ug/l	0.10	0.02
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.10	0.05
Benzo(a)anthracene	ND		ug/l	0.10	0.02
Benzo(a)pyrene	ND		ug/l	0.10	0.02
Benzo(b)fluoranthene	ND		ug/l	0.10	0.01
Benzo(k)fluoranthene	0.01	J	ug/l	0.10	0.01
Chrysene	0.01	J	ug/l	0.10	0.01
Acenaphthylene	ND		ug/l	0.10	0.01
Anthracene	ND		ug/l	0.10	0.01
Benzo(ghi)perylene	ND		ug/l	0.10	0.01
Fluorene	ND		ug/l	0.10	0.01
Phenanthrene	0.03	J	ug/l	0.10	0.02
Dibenzo(a,h)anthracene	ND		ug/l	0.10	0.01
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10	0.01
Pyrene	0.02	J	ug/l	0.10	0.02
2-Methylnaphthalene	ND		ug/l	0.10	0.02
Pentachlorophenol	ND		ug/l	0.80	0.01
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D-SIM
 Analytical Date: 01/09/19 14:57
 Analyst: CB

Extraction Method: EPA 3510C
 Extraction Date: 01/08/19 10:51

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 11 Batch: WG1195689-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		21-120
Phenol-d6	44		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	86		15-120
2,4,6-Tribromophenol	83		10-120
4-Terphenyl-d14	91		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1195621-2 WG1195621-3								
Acenaphthene	82		71		31-137	14		50
1,2,4-Trichlorobenzene	76		64		38-107	17		50
Hexachlorobenzene	80		67		40-140	18		50
Bis(2-chloroethyl)ether	76		62		40-140	20		50
2-Chloronaphthalene	79		69		40-140	14		50
1,2-Dichlorobenzene	73		61		40-140	18		50
1,3-Dichlorobenzene	73		60		40-140	20		50
1,4-Dichlorobenzene	74		61		28-104	19		50
3,3'-Dichlorobenzidine	46		43		40-140	7		50
2,4-Dinitrotoluene	97		82		40-132	17		50
2,6-Dinitrotoluene	90		84		40-140	7		50
Fluoranthene	77		72		40-140	7		50
4-Chlorophenyl phenyl ether	78		64		40-140	20		50
4-Bromophenyl phenyl ether	80		68		40-140	16		50
Bis(2-chloroisopropyl)ether	76		62		40-140	20		50
Bis(2-chloroethoxy)methane	81		68		40-117	17		50
Hexachlorobutadiene	68		58		40-140	16		50
Hexachlorocyclopentadiene	70		60		40-140	15		50
Hexachloroethane	77		64		40-140	18		50
Isophorone	84		72		40-140	15		50
Naphthalene	72		60		40-140	18		50
Nitrobenzene	81		69		40-140	16		50
NDPA/DPA	86		71		36-157	19		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1195621-2 WG1195621-3								
n-Nitrosodi-n-propylamine	82		72		32-121	13		50
Bis(2-ethylhexyl)phthalate	80		69		40-140	15		50
Butyl benzyl phthalate	77		76		40-140	1		50
Di-n-butylphthalate	86		76		40-140	12		50
Di-n-octylphthalate	80		80		40-140	0		50
Diethyl phthalate	88		73		40-140	19		50
Dimethyl phthalate	82		76		40-140	8		50
Benzo(a)anthracene	74		63		40-140	16		50
Benzo(a)pyrene	78		76		40-140	3		50
Benzo(b)fluoranthene	80		76		40-140	5		50
Benzo(k)fluoranthene	73		76		40-140	4		50
Chrysene	73		63		40-140	15		50
Acenaphthylene	83		76		40-140	9		50
Anthracene	77		68		40-140	12		50
Benzo(ghi)perylene	77		66		40-140	15		50
Fluorene	86		70		40-140	21		50
Phenanthrene	74		65		40-140	13		50
Dibenzo(a,h)anthracene	78		65		40-140	18		50
Indeno(1,2,3-cd)pyrene	80		66		40-140	19		50
Pyrene	75		70		35-142	7		50
Biphenyl	83		72		54-104	14		50
4-Chloroaniline	41		39	Q	40-140	5		50
2-Nitroaniline	87		80		47-134	8		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1195621-2 WG1195621-3								
3-Nitroaniline	68		63		26-129	8		50
4-Nitroaniline	88		73		41-125	19		50
Dibenzofuran	81		69		40-140	16		50
2-Methylnaphthalene	76		66		40-140	14		50
1,2,4,5-Tetrachlorobenzene	77		68		40-117	12		50
Acetophenone	86		74		14-144	15		50
2,4,6-Trichlorophenol	85		76		30-130	11		50
p-Chloro-m-cresol	85		75		26-103	13		50
2-Chlorophenol	81		68		25-102	17		50
2,4-Dichlorophenol	85		74		30-130	14		50
2,4-Dimethylphenol	85		75		30-130	13		50
2-Nitrophenol	86		73		30-130	16		50
4-Nitrophenol	96		80		11-114	18		50
2,4-Dinitrophenol	83		77		4-130	8		50
4,6-Dinitro-o-cresol	93		80		10-130	15		50
Pentachlorophenol	78		69		17-109	12		50
Phenol	78		66		26-90	17		50
2-Methylphenol	82		73		30-130.	12		50
3-Methylphenol/4-Methylphenol	84		74		30-130	13		50
2,4,5-Trichlorophenol	84		75		30-130	11		50
Benzoic Acid	46		41		10-110	11		50
Benzyl Alcohol	87		76		40-140	13		50
Carbazole	78		68		54-128	14		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1195621-2 WG1195621-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	83		66		25-120
Phenol-d6	85		70		10-120
Nitrobenzene-d5	84		72		23-120
2-Fluorobiphenyl	79		68		30-120
2,4,6-Tribromophenol	93		79		10-136
4-Terphenyl-d14	66		61		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1195687-2 WG1195687-3								
Acenaphthene	65		71		37-111	9		30
1,2,4-Trichlorobenzene	61		70		39-98	14		30
Hexachlorobenzene	72		75		40-140	4		30
Bis(2-chloroethyl)ether	56		73		40-140	26		30
2-Chloronaphthalene	67		79		40-140	16		30
1,2-Dichlorobenzene	57		70		40-140	20		30
1,3-Dichlorobenzene	54		69		40-140	24		30
1,4-Dichlorobenzene	53		68		36-97	25		30
3,3'-Dichlorobenzidine	74		83		40-140	11		30
2,4-Dinitrotoluene	75		78		48-143	4		30
2,6-Dinitrotoluene	84		83		40-140	1		30
Fluoranthene	77		82		40-140	6		30
4-Chlorophenyl phenyl ether	72		70		40-140	3		30
4-Bromophenyl phenyl ether	74		82		40-140	10		30
Bis(2-chloroisopropyl)ether	61		76		40-140	22		30
Bis(2-chloroethoxy)methane	72		79		40-140	9		30
Hexachlorobutadiene	50		70		40-140	33	Q	30
Hexachlorocyclopentadiene	53		71		40-140	29		30
Hexachloroethane	56		67		40-140	18		30
Isophorone	70		84		40-140	18		30
Naphthalene	58		74		40-140	24		30
Nitrobenzene	62		73		40-140	16		30
NDPA/DPA	78		75		40-140	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS	Qual	LCS	Qual	%Recovery	RPD	Qual	RPD
	%Recovery		%Recovery		Limits			Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1195687-2 WG1195687-3								
n-Nitrosodi-n-propylamine	68		82		29-132			30
Bis(2-ethylhexyl)phthalate	88		99		40-140			30
Butyl benzyl phthalate	99		105		40-140			30
Di-n-butylphthalate	79		83		40-140			30
Di-n-octylphthalate	99		100		40-140			30
Diethyl phthalate	79		76		40-140			30
Dimethyl phthalate	83		81		40-140			30
Benzo(a)anthracene	81		88		40-140			30
Benzo(a)pyrene	84		86		40-140			30
Benzo(b)fluoranthene	84		87		40-140			30
Benzo(k)fluoranthene	87		93		40-140			30
Chrysene	79		84		40-140			30
Acenaphthylene	73		77		45-123			30
Anthracene	76		85		40-140			30
Benzo(ghi)perylene	80		100		40-140			30
Fluorene	73		70		40-140			30
Phenanthrene	76		80		40-140			30
Dibenzo(a,h)anthracene	80		95		40-140			30
Indeno(1,2,3-cd)pyrene	78		91		40-140			30
Pyrene	75		82		26-127			30
Biphenyl	64		75		40-140			30
4-Chloroaniline	60		72		40-140			30
2-Nitroaniline	84		88		52-143			30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1195687-2 WG1195687-3								
3-Nitroaniline	70		79		25-145	12		30
4-Nitroaniline	79		71		51-143	11		30
Dibenzofuran	70		74		40-140	6		30
2-Methylnaphthalene	62		79		40-140	24		30
1,2,4,5-Tetrachlorobenzene	59		72		2-134	20		30
Acetophenone	63		78		39-129	21		30
2,4,6-Trichlorophenol	78		88		30-130	12		30
p-Chloro-m-cresol	83		90		23-97	8		30
2-Chlorophenol	61		77		27-123	23		30
2,4-Dichlorophenol	80		81		30-130	1		30
2,4-Dimethylphenol	48		58		30-130	19		30
2-Nitrophenol	67		83		30-130	21		30
4-Nitrophenol	73		74		10-80	1		30
2,4-Dinitrophenol	80		82		20-130	2		30
4,6-Dinitro-o-cresol	77		76		20-164	1		30
Pentachlorophenol	80		81		9-103	1		30
Phenol	52		63		12-110	19		30
2-Methylphenol	66		78		30-130	17		30
3-Methylphenol/4-Methylphenol	75		85		30-130	13		30
2,4,5-Trichlorophenol	82		86		30-130	5		30
Benzoic Acid	66		64		10-164	3		30
Benzyl Alcohol	68		76		26-116	11		30
Carbazole	84		89		55-144	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1195687-2 WG1195687-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	62		68		21-120
Phenol-d6	52		61		10-120
Nitrobenzene-d5	61		75		23-120
2-Fluorobiphenyl	69		79		15-120
2,4,6-Tribromophenol	83		76		10-120
4-Terphenyl-d14	70		73		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 11 Batch: WG1195689-2 WG1195689-3								
Acenaphthene	63		66		40-140	5		40
2-Chloronaphthalene	73		77		40-140	5		40
Fluoranthene	79		81		40-140	3		40
Hexachlorobutadiene	70		72		40-140	3		40
Naphthalene	66		69		40-140	4		40
Benzo(a)anthracene	78		80		40-140	3		40
Benzo(a)pyrene	68		69		40-140	1		40
Benzo(b)fluoranthene	64		65		40-140	2		40
Benzo(k)fluoranthene	67		68		40-140	1		40
Chrysene	71		72		40-140	1		40
Acenaphthylene	77		80		40-140	4		40
Anthracene	72		74		40-140	3		40
Benzo(ghi)perylene	65		65		40-140	0		40
Fluorene	67		70		40-140	4		40
Phenanthrene	70		73		40-140	4		40
Dibenzo(a,h)anthracene	66		67		40-140	2		40
Indeno(1,2,3-cd)pyrene	79		80		40-140	1		40
Pyrene	80		82		40-140	2		40
2-Methylnaphthalene	72		75		40-140	4		40
Pentachlorophenol	66		64		40-140	3		40
Hexachlorobenzene	66		69		40-140	4		40
Hexachloroethane	60		62		40-140	3		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

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Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 11 Batch: WG1195689-2 WG1195689-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	52		54		21-120
Phenol-d6	44		45		10-120
Nitrobenzene-d5	73		76		23-120
2-Fluorobiphenyl	74		78		15-120
2,4,6-Tribromophenol	67		69		10-120
4-Terphenyl-d14	81		83		41-149

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1195621-4 WG1195621-5 QC Sample: L1900707-03 Client ID: RB13_22-24												
Acenaphthene	ND	1570	1300	83		1400	90		31-137	7		50
1,2,4-Trichlorobenzene	ND	1570	1600	100		1700	110	Q	38-107	6		50
Hexachlorobenzene	ND	1570	1500	95		1600	100		40-140	6		50
Bis(2-chloroethyl)ether	ND	1570	1300	83		1400	90		40-140	7		50
2-Chloronaphthalene	ND	1570	1600	100		1800	120		40-140	12		50
1,2-Dichlorobenzene	ND	1570	1400	89		1400	90		40-140	0		50
1,3-Dichlorobenzene	ND	1570	1300	83		1400	90		40-140	7		50
1,4-Dichlorobenzene	ND	1570	1300	83		1400	90		28-104	7		50
3,3'-Dichlorobenzidine	ND	1570	930J	59		1100	71		40-140	17		50
2,4-Dinitrotoluene	ND	1570	1100	70		1300	83		40-132	17		50
2,6-Dinitrotoluene	ND	1570	1300	83		1600	100		40-140	21		50
Fluoranthene	280J	1570	1500	95		1700	110		40-140	13		50
4-Chlorophenyl phenyl ether	ND	1570	1300	83		1500	96		40-140	14		50
4-Bromophenyl phenyl ether	ND	1570	1400	89		1500	96		40-140	7		50
Bis(2-chloroisopropyl)ether	ND	1570	1300	83		1400	90		40-140	7		50
Bis(2-chloroethoxy)methane	ND	1570	1500	95		1800	120	Q	40-117	18		50
Hexachlorobutadiene	ND	1570	1800	110		1900	120		40-140	5		50
Hexachlorocyclopentadiene	ND	1570	1000J	63		1100J	71		40-140	10		50
Hexachloroethane	ND	1570	2800	180	Q	2800	180	Q	40-140	0		50
Isophorone	ND	1570	1800	110		1900	120		40-140	5		50
Naphthalene	22000	1570	11000	0	Q	10000	0	Q	40-140	10		50
Nitrobenzene	ND	1570	730J	46		610J	39	Q	40-140	18		50
NDPA/DPA	ND	1570	1300	83		1400	90		36-157	7		50

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1195621-4 WG1195621-5 QC Sample: L1900707-03 Client ID: RB13_22-24												
n-Nitrosodi-n-propylamine	ND	1570	2000	130	Q	2000	130	Q	32-121	0		50
Bis(2-ethylhexyl)phthalate	ND	1570	1300	83		1500	96		40-140	14		50
Butyl benzyl phthalate	ND	1570	1300	83		1500	96		40-140	14		50
Di-n-butylphthalate	ND	1570	1400	89		1700	110		40-140	19		50
Di-n-octylphthalate	ND	1570	1300	83		1500	96		40-140	14		50
Diethyl phthalate	ND	1570	1300	83		1400	90		40-140	7		50
Dimethyl phthalate	ND	1570	1700	110		1800	120		40-140	6		50
Benzo(a)anthracene	160J	1570	1400	89		1500	96		40-140	7		50
Benzo(a)pyrene	ND	1570	1400	89		1600	100		40-140	13		50
Benzo(b)fluoranthene	ND	1570	1300	83		1500	96		40-140	14		50
Benzo(k)fluoranthene	ND	1570	1400	89		1500	96		40-140	7		50
Chrysene	140J	1570	1400	89		1500	96		40-140	7		50
Acenaphthylene	ND	1570	1600	100		1800	120		40-140	12		50
Anthracene	ND	1570	1500	95		1600	100		40-140	6		50
Benzo(ghi)perylene	120J	1570	1400	89		1500	96		40-140	7		50
Fluorene	170J	1570	1400	89		1500	96		40-140	7		50
Phenanthrene	320J	1570	1500	95		1600	100		40-140	6		50
Dibenzo(a,h)anthracene	ND	1570	1400	89		1500	96		40-140	7		50
Indeno(1,2,3-cd)pyrene	ND	1570	1400	89		1500	96		40-140	7		50
Pyrene	330J	1570	1400	89		1700	110		35-142	19		50
Biphenyl	460J	1570	1800J	110	Q	1900J	120	Q	54-104	5		50
4-Chloroaniline	ND	1570	870J	55		980	63		40-140	12		50
2-Nitroaniline	ND	1570	1800	110		2000	130		47-134	11		50

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1195621-4 WG1195621-5 QC Sample: L1900707-03 Client ID: RB13_22-24												
3-Nitroaniline	ND	1570	960J	61		1200	77		26-129	22		50
4-Nitroaniline	ND	1570	1200	76		1300	83		41-125	8		50
Dibenzofuran	ND	1570	1300	83		1400	90		40-140	7		50
2-Methylnaphthalene	16000	1570	8800	0	Q	8400	0	Q	40-140	5		50
1,2,4,5-Tetrachlorobenzene	ND	1570	1700	110		1800	120	Q	40-117	6		50
Acetophenone	ND	1570	ND	0	Q	ND	0	Q	14-144	NC		50
2,4,6-Trichlorophenol	ND	1570	1700	110		1800	120		30-130	6		50
p-Chloro-m-cresol	ND	1570	1600	100		1800	120	Q	26-103	12		50
2-Chlorophenol	ND	1570	1400	89		1600	100		25-102	13		50
2,4-Dichlorophenol	ND	1570	1600	100		1700	110		30-130	6		50
2,4-Dimethylphenol	ND	1570	1600	100		1700	110		30-130	6		50
2-Nitrophenol	ND	1570	1000J	63		1100J	71		30-130	10		50
4-Nitrophenol	ND	1570	1300J	83		1700	110		11-114	27		50
2,4-Dinitrophenol	ND	1570	ND	0	Q	ND	0	Q	4-130	NC		50
4,6-Dinitro-o-cresol	ND	1570	ND	0	Q	ND	0	Q	10-130	NC		50
Pentachlorophenol	ND	1570	1500	95		1500	96		17-109	0		50
Phenol	ND	1570	1400	89		1500	96	Q	26-90	7		50
2-Methylphenol	ND	1570	1500	95		1600	100		30-130.	6		50
3-Methylphenol/4-Methylphenol	ND	1570	1500	95		1500	96		30-130	0		50
2,4,5-Trichlorophenol	ND	1570	1800	110		1900	120		30-130	5		50
Benzoic Acid	ND	1570	ND	0	Q	ND	0	Q	10-110	NC		50
Benzyl Alcohol	ND	1570	1800	110		1900	120		40-140	5		50
Carbazole	ND	1570	1400	89		1600	100		54-128	13		50

Matrix Spike Analysis**Batch Quality Control****Project Name:** GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Semivolatiles Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1195621-4 WG1195621-5 QC Sample: L1900707-03 Client ID: RB13_22-24

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
2,4,6-Tribromophenol	103		108		10-136
2-Fluorobiphenyl	107		111		30-120
2-Fluorophenol	88		93		25-120
4-Terphenyl-d14	83		97		18-120
Nitrobenzene-d5	116		116		23-120
Phenol-d6	85		96		10-120

PCBS

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-01
 Client ID: RB13_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:45
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/08/19 15:10
 Analyst: WR
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:37
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/08/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.6	3.43	1	A
Aroclor 1221	ND		ug/kg	38.6	3.87	1	A
Aroclor 1232	ND		ug/kg	38.6	8.19	1	A
Aroclor 1242	ND		ug/kg	38.6	5.21	1	A
Aroclor 1248	ND		ug/kg	38.6	5.79	1	A
Aroclor 1254	ND		ug/kg	38.6	4.23	1	A
Aroclor 1260	ND		ug/kg	38.6	7.14	1	A
Aroclor 1262	ND		ug/kg	38.6	4.91	1	A
Aroclor 1268	ND		ug/kg	38.6	4.00	1	A
PCBs, Total	ND		ug/kg	38.6	3.43	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	80		30-150	B
Decachlorobiphenyl	47		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-02
 Client ID: RB13_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 11:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/08/19 15:22
 Analyst: WR
 Percent Solids: 84%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:33
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/08/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.7	3.35	1	A
Aroclor 1221	ND		ug/kg	37.7	3.78	1	A
Aroclor 1232	ND		ug/kg	37.7	8.00	1	A
Aroclor 1242	ND		ug/kg	37.7	5.08	1	A
Aroclor 1248	ND		ug/kg	37.7	5.66	1	A
Aroclor 1254	ND		ug/kg	37.7	4.13	1	A
Aroclor 1260	ND		ug/kg	37.7	6.97	1	A
Aroclor 1262	ND		ug/kg	37.7	4.79	1	A
Aroclor 1268	ND		ug/kg	37.7	3.91	1	A
PCBs, Total	ND		ug/kg	37.7	3.35	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	89		30-150	A
Decachlorobiphenyl	85		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	58		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-03
 Client ID: RB13_22-24
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:50
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/08/19 15:35
 Analyst: WR
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:33
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/08/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.3	3.40	1	A
Aroclor 1221	ND		ug/kg	38.3	3.83	1	A
Aroclor 1232	ND		ug/kg	38.3	8.11	1	A
Aroclor 1242	ND		ug/kg	38.3	5.16	1	A
Aroclor 1248	ND		ug/kg	38.3	5.74	1	A
Aroclor 1254	ND		ug/kg	38.3	4.19	1	A
Aroclor 1260	ND		ug/kg	38.3	7.07	1	A
Aroclor 1262	ND		ug/kg	38.3	4.86	1	A
Aroclor 1268	ND		ug/kg	38.3	3.96	1	A
PCBs, Total	ND		ug/kg	38.3	3.40	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	A
Decachlorobiphenyl	95		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-04
 Client ID: RB13_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:55
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/08/19 15:47
 Analyst: WR
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:33
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/08/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.0	3.28	1	A
Aroclor 1221	ND		ug/kg	37.0	3.70	1	A
Aroclor 1232	ND		ug/kg	37.0	7.84	1	A
Aroclor 1242	ND		ug/kg	37.0	4.98	1	A
Aroclor 1248	ND		ug/kg	37.0	5.54	1	A
Aroclor 1254	ND		ug/kg	37.0	4.04	1	A
Aroclor 1260	ND		ug/kg	37.0	6.83	1	A
Aroclor 1262	ND		ug/kg	37.0	4.69	1	A
Aroclor 1268	ND		ug/kg	37.0	3.83	1	A
PCBs, Total	ND		ug/kg	37.0	3.28	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	74		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	50		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-05
 Client ID: RB14_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:20
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/08/19 15:59
 Analyst: WR
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:33
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/08/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.7	3.43	1	A
Aroclor 1221	ND		ug/kg	38.7	3.87	1	A
Aroclor 1232	ND		ug/kg	38.7	8.20	1	A
Aroclor 1242	ND		ug/kg	38.7	5.21	1	A
Aroclor 1248	ND		ug/kg	38.7	5.80	1	A
Aroclor 1254	ND		ug/kg	38.7	4.23	1	A
Aroclor 1260	ND		ug/kg	38.7	7.15	1	A
Aroclor 1262	ND		ug/kg	38.7	4.91	1	A
Aroclor 1268	ND		ug/kg	38.7	4.01	1	A
PCBs, Total	ND		ug/kg	38.7	3.43	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	65		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	40		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-06
 Client ID: RB14_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:25
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/08/19 16:12
 Analyst: WR
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:33
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/08/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.9	3.28	1	A
Aroclor 1221	ND		ug/kg	36.9	3.70	1	A
Aroclor 1232	ND		ug/kg	36.9	7.82	1	A
Aroclor 1242	ND		ug/kg	36.9	4.97	1	A
Aroclor 1248	ND		ug/kg	36.9	5.53	1	A
Aroclor 1254	ND		ug/kg	36.9	4.03	1	A
Aroclor 1260	ND		ug/kg	36.9	6.82	1	A
Aroclor 1262	ND		ug/kg	36.9	4.68	1	A
Aroclor 1268	ND		ug/kg	36.9	3.82	1	A
PCBs, Total	ND		ug/kg	36.9	3.28	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	90		30-150	A
Decachlorobiphenyl	88		30-150	A
2,4,5,6-Tetrachloro-m-xylene	88		30-150	B
Decachlorobiphenyl	59		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-07
 Client ID: RB14_23-25
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:30
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/09/19 13:46
 Analyst: WR
 Percent Solids: 82%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:33
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/08/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.6	3.52	1	A
Aroclor 1221	ND		ug/kg	39.6	3.97	1	A
Aroclor 1232	ND		ug/kg	39.6	8.41	1	A
Aroclor 1242	ND		ug/kg	39.6	5.34	1	A
Aroclor 1248	ND		ug/kg	39.6	5.95	1	A
Aroclor 1254	ND		ug/kg	39.6	4.34	1	A
Aroclor 1260	ND		ug/kg	39.6	7.33	1	A
Aroclor 1262	ND		ug/kg	39.6	5.04	1	A
Aroclor 1268	ND		ug/kg	39.6	4.11	1	A
PCBs, Total	ND		ug/kg	39.6	3.52	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	148		30-150	A
Decachlorobiphenyl	139		30-150	A
2,4,5,6-Tetrachloro-m-xylene	152	Q	30-150	B
Decachlorobiphenyl	160	Q	30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-08
 Client ID: RB14_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:35
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/08/19 16:36
 Analyst: WR
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:33
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/08/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.8	3.27	1	A
Aroclor 1221	ND		ug/kg	36.8	3.69	1	A
Aroclor 1232	ND		ug/kg	36.8	7.80	1	A
Aroclor 1242	ND		ug/kg	36.8	4.96	1	A
Aroclor 1248	ND		ug/kg	36.8	5.52	1	A
Aroclor 1254	ND		ug/kg	36.8	4.03	1	A
Aroclor 1260	ND		ug/kg	36.8	6.80	1	A
Aroclor 1262	ND		ug/kg	36.8	4.67	1	A
Aroclor 1268	ND		ug/kg	36.8	3.81	1	A
PCBs, Total	ND		ug/kg	36.8	3.27	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	A
Decachlorobiphenyl	79		30-150	A
2,4,5,6-Tetrachloro-m-xylene	82		30-150	B
Decachlorobiphenyl	54		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-09
 Client ID: SODUP04_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 00:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/09/19 02:06
 Analyst: WR
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:37
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/08/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.5	3.51	1	A
Aroclor 1221	ND		ug/kg	39.5	3.96	1	A
Aroclor 1232	ND		ug/kg	39.5	8.37	1	A
Aroclor 1242	ND		ug/kg	39.5	5.32	1	A
Aroclor 1248	ND		ug/kg	39.5	5.92	1	A
Aroclor 1254	ND		ug/kg	39.5	4.32	1	A
Aroclor 1260	ND		ug/kg	39.5	7.30	1	A
Aroclor 1262	ND		ug/kg	39.5	5.02	1	A
Aroclor 1268	ND		ug/kg	39.5	4.09	1	A
PCBs, Total	ND		ug/kg	39.5	3.51	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	81		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	87		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-11
Client ID: SOFB03_010719
Sample Location: BRONX, NY

Date Collected: 01/07/19 14:00
Date Received: 01/07/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8082A
Analytical Date: 01/09/19 14:11
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 01/08/19 08:22
Cleanup Method: EPA 3665A
Cleanup Date: 01/08/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/09/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	67		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		30-150	B
Decachlorobiphenyl	68		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8082A
 Analytical Date: 01/08/19 07:19
 Analyst: HT

Extraction Method: EPA 3546
 Extraction Date: 01/07/19 06:21
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/07/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/07/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-09 Batch: WG1195268-1						
Aroclor 1016	ND		ug/kg	31.7	2.82	A
Aroclor 1221	ND		ug/kg	31.7	3.18	A
Aroclor 1232	ND		ug/kg	31.7	6.72	A
Aroclor 1242	ND		ug/kg	31.7	4.28	A
Aroclor 1248	ND		ug/kg	31.7	4.76	A
Aroclor 1254	ND		ug/kg	31.7	3.47	A
Aroclor 1260	ND		ug/kg	31.7	5.86	A
Aroclor 1262	ND		ug/kg	31.7	4.03	A
Aroclor 1268	ND		ug/kg	31.7	3.29	A
PCBs, Total	ND		ug/kg	31.7	2.82	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		30-150	A
Decachlorobiphenyl	96		30-150	A
2,4,5,6-Tetrachloro-m-xylene	102		30-150	B
Decachlorobiphenyl	105		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8082A
Analytical Date: 01/09/19 11:01
Analyst: HT

Extraction Method: EPA 3510C
Extraction Date: 01/08/19 08:22
Cleanup Method: EPA 3665A
Cleanup Date: 01/08/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/09/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 11 Batch: WG1195614-1						
Aroclor 1016	ND		ug/l	0.082	0.034	A
Aroclor 1221	ND		ug/l	0.082	0.066	A
Aroclor 1232	ND		ug/l	0.082	0.045	A
Aroclor 1242	ND		ug/l	0.082	0.038	A
Aroclor 1248	ND		ug/l	0.082	0.048	A
Aroclor 1254	ND		ug/l	0.082	0.039	A
Aroclor 1260	ND		ug/l	0.082	0.032	A
Aroclor 1262	ND		ug/l	0.082	0.034	A
Aroclor 1268	ND		ug/l	0.082	0.033	A
PCBs, Total	ND		ug/l	0.082	0.032	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	87		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-09 Batch: WG1195268-2 WG1195268-3									
Aroclor 1016	85		80		40-140	6		50	A
Aroclor 1260	80		79		40-140	1		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	93		89		30-150	A
Decachlorobiphenyl	97		95		30-150	A
2,4,5,6-Tetrachloro-m-xylene	96		97		30-150	B
Decachlorobiphenyl	100		103		30-150	B



Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 11 Batch: WG1195614-2 WG1195614-3									
Aroclor 1016	73		77		40-140	6		50	A
Aroclor 1260	75		79		40-140	6		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		84		30-150	A
Decachlorobiphenyl	73		78		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		86		30-150	B
Decachlorobiphenyl	80		89		30-150	B



Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1195268-4 WG1195268-5 QC Sample: L1900707-03 Client ID: RB13_22-24													
Aroclor 1016	ND	247	91.6	37	Q	90.9	38	Q	40-140	1		50	A
Aroclor 1260	ND	247	98.0	40	Q	92.9	38	Q	40-140	5		50	A

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
2,4,5,6-Tetrachloro-m-xylene	31		30		30-150	A
Decachlorobiphenyl	42		39		30-150	A
2,4,5,6-Tetrachloro-m-xylene	37		33		30-150	B
Decachlorobiphenyl	43		37		30-150	B

PESTICIDES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-01
 Client ID: RB13_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:45
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/10/19 12:17
 Analyst: BM
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:41
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.84	0.360	1	A
Lindane	ND		ug/kg	0.766	0.343	1	A
Alpha-BHC	ND		ug/kg	0.766	0.218	1	A
Beta-BHC	ND		ug/kg	1.84	0.698	1	A
Heptachlor	ND		ug/kg	0.920	0.412	1	A
Aldrin	ND		ug/kg	1.84	0.648	1	A
Heptachlor epoxide	ND		ug/kg	3.45	1.03	1	A
Endrin	ND		ug/kg	0.766	0.314	1	A
Endrin aldehyde	ND		ug/kg	2.30	0.805	1	A
Endrin ketone	ND		ug/kg	1.84	0.474	1	A
Dieldrin	ND		ug/kg	1.15	0.575	1	A
4,4'-DDE	ND		ug/kg	1.84	0.425	1	A
4,4'-DDD	ND		ug/kg	1.84	0.656	1	A
4,4'-DDT	ND		ug/kg	3.45	1.48	1	A
Endosulfan I	ND		ug/kg	1.84	0.435	1	A
Endosulfan II	ND		ug/kg	1.84	0.615	1	A
Endosulfan sulfate	ND		ug/kg	0.766	0.365	1	A
Methoxychlor	ND		ug/kg	3.45	1.07	1	A
Toxaphene	ND		ug/kg	34.5	9.66	1	A
cis-Chlordane	ND		ug/kg	2.30	0.641	1	A
trans-Chlordane	ND		ug/kg	2.30	0.607	1	A
Chlordane	ND		ug/kg	14.9	6.09	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-01
 Client ID: RB13_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:45
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		30-150	B
Decachlorobiphenyl	101		30-150	B
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	95		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-01
 Client ID: RB13_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:45
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/10/19 22:14
 Analyst: SL
 Percent Solids: 86%
 Methylation Date: 01/09/19 23:01

Extraction Method: EPA 8151A
 Extraction Date: 01/09/19 01:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	192	12.1	1	A
2,4,5-T	ND		ug/kg	192	5.94	1	A
2,4,5-TP (Silvex)	ND		ug/kg	192	5.10	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	99		30-150	A
DCAA	90		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-02
 Client ID: RB13_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 11:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/10/19 12:29
 Analyst: BM
 Percent Solids: 84%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:41
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.86	0.363	1	A
Lindane	ND		ug/kg	0.773	0.346	1	A
Alpha-BHC	ND		ug/kg	0.773	0.220	1	A
Beta-BHC	ND		ug/kg	1.86	0.703	1	A
Heptachlor	ND		ug/kg	0.928	0.416	1	A
Aldrin	ND		ug/kg	1.86	0.653	1	A
Heptachlor epoxide	ND		ug/kg	3.48	1.04	1	A
Endrin	ND		ug/kg	0.773	0.317	1	A
Endrin aldehyde	ND		ug/kg	2.32	0.812	1	A
Endrin ketone	ND		ug/kg	1.86	0.478	1	A
Dieldrin	ND		ug/kg	1.16	0.580	1	A
4,4'-DDE	ND		ug/kg	1.86	0.429	1	A
4,4'-DDD	ND		ug/kg	1.86	0.662	1	A
4,4'-DDT	ND		ug/kg	3.48	1.49	1	A
Endosulfan I	ND		ug/kg	1.86	0.438	1	A
Endosulfan II	ND		ug/kg	1.86	0.620	1	A
Endosulfan sulfate	ND		ug/kg	0.773	0.368	1	A
Methoxychlor	ND		ug/kg	3.48	1.08	1	A
Toxaphene	ND		ug/kg	34.8	9.74	1	A
cis-Chlordane	ND		ug/kg	2.32	0.646	1	A
trans-Chlordane	ND		ug/kg	2.32	0.612	1	A
Chlordane	ND		ug/kg	15.1	6.14	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-02

Date Collected: 01/07/19 11:00

Client ID: RB13_18-20

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	B
Decachlorobiphenyl	104		30-150	B
2,4,5,6-Tetrachloro-m-xylene	108		30-150	A
Decachlorobiphenyl	104		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-02
 Client ID: RB13_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 11:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/10/19 22:34
 Analyst: SL
 Percent Solids: 84%
 Methylation Date: 01/09/19 23:01

Extraction Method: EPA 8151A
 Extraction Date: 01/09/19 01:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	195	12.3	1	A
2,4,5-T	ND		ug/kg	195	6.04	1	A
2,4,5-TP (Silvex)	ND		ug/kg	195	5.18	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	110		30-150	A
DCAA	88		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-03
 Client ID: RB13_22-24
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:50
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/10/19 12:42
 Analyst: BM
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:41
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.87	0.366	1	A
Lindane	ND		ug/kg	0.780	0.348	1	A
Alpha-BHC	ND		ug/kg	0.780	0.221	1	A
Beta-BHC	ND		ug/kg	1.87	0.710	1	A
Heptachlor	ND		ug/kg	0.936	0.420	1	A
Aldrin	ND		ug/kg	1.87	0.659	1	A
Heptachlor epoxide	ND		ug/kg	3.51	1.05	1	A
Endrin	ND		ug/kg	0.780	0.320	1	A
Endrin aldehyde	ND		ug/kg	2.34	0.819	1	A
Endrin ketone	ND		ug/kg	1.87	0.482	1	A
Dieldrin	ND		ug/kg	1.17	0.585	1	A
4,4'-DDE	ND		ug/kg	1.87	0.433	1	A
4,4'-DDD	ND		ug/kg	1.87	0.668	1	A
4,4'-DDT	ND		ug/kg	3.51	1.50	1	A
Endosulfan I	ND		ug/kg	1.87	0.442	1	A
Endosulfan II	ND		ug/kg	1.87	0.625	1	A
Endosulfan sulfate	ND		ug/kg	0.780	0.371	1	A
Methoxychlor	ND		ug/kg	3.51	1.09	1	A
Toxaphene	ND		ug/kg	35.1	9.82	1	A
cis-Chlordane	ND		ug/kg	2.34	0.652	1	A
trans-Chlordane	ND		ug/kg	2.34	0.618	1	A
Chlordane	ND		ug/kg	15.2	6.20	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-03

Date Collected: 01/07/19 10:50

Client ID: RB13_22-24

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	81		30-150	B
2,4,5,6-Tetrachloro-m-xylene	642	Q	30-150	A
Decachlorobiphenyl	131		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-03
 Client ID: RB13_22-24
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:50
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/10/19 22:54
 Analyst: SL
 Percent Solids: 83%
 Methylation Date: 01/09/19 23:01

Extraction Method: EPA 8151A
 Extraction Date: 01/09/19 01:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	197	12.4	1	A
2,4,5-T	ND		ug/kg	197	6.09	1	A
2,4,5-TP (Silvex)	ND		ug/kg	197	5.23	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	108		30-150	A
DCAA	85		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-04
 Client ID: RB13_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:55
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/10/19 12:55
 Analyst: BM
 Percent Solids: 89%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:41
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.73	0.339	1	A
Lindane	ND		ug/kg	0.721	0.322	1	A
Alpha-BHC	ND		ug/kg	0.721	0.205	1	A
Beta-BHC	ND		ug/kg	1.73	0.656	1	A
Heptachlor	ND		ug/kg	0.866	0.388	1	A
Aldrin	ND		ug/kg	1.73	0.610	1	A
Heptachlor epoxide	ND		ug/kg	3.24	0.974	1	A
Endrin	ND		ug/kg	0.721	0.296	1	A
Endrin aldehyde	ND		ug/kg	2.16	0.757	1	A
Endrin ketone	ND		ug/kg	1.73	0.446	1	A
Dieldrin	ND		ug/kg	1.08	0.541	1	A
4,4'-DDE	ND		ug/kg	1.73	0.400	1	A
4,4'-DDD	ND		ug/kg	1.73	0.617	1	A
4,4'-DDT	ND		ug/kg	3.24	1.39	1	A
Endosulfan I	ND		ug/kg	1.73	0.409	1	A
Endosulfan II	ND		ug/kg	1.73	0.578	1	A
Endosulfan sulfate	ND		ug/kg	0.721	0.343	1	A
Methoxychlor	ND		ug/kg	3.24	1.01	1	A
Toxaphene	ND		ug/kg	32.4	9.09	1	A
cis-Chlordane	ND		ug/kg	2.16	0.603	1	A
trans-Chlordane	ND		ug/kg	2.16	0.571	1	A
Chlordane	ND		ug/kg	14.1	5.73	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-04
 Client ID: RB13_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:55
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	106		30-150	B
Decachlorobiphenyl	117		30-150	B
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	94		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-04
 Client ID: RB13_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 10:55
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/10/19 23:14
 Analyst: SL
 Percent Solids: 89%
 Methylation Date: 01/09/19 23:01

Extraction Method: EPA 8151A
 Extraction Date: 01/09/19 01:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	185	11.7	1	A
2,4,5-T	ND		ug/kg	185	5.74	1	A
2,4,5-TP (Silvex)	ND		ug/kg	185	4.93	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	99		30-150	A
DCAA	87		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-05
 Client ID: RB14_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:20
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/10/19 13:07
 Analyst: BM
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:44
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.83	0.358	1	A
Lindane	ND		ug/kg	0.762	0.340	1	A
Alpha-BHC	ND		ug/kg	0.762	0.216	1	A
Beta-BHC	ND		ug/kg	1.83	0.693	1	A
Heptachlor	ND		ug/kg	0.914	0.410	1	A
Aldrin	ND		ug/kg	1.83	0.644	1	A
Heptachlor epoxide	ND		ug/kg	3.43	1.03	1	A
Endrin	ND		ug/kg	0.762	0.312	1	A
Endrin aldehyde	ND		ug/kg	2.28	0.800	1	A
Endrin ketone	ND		ug/kg	1.83	0.471	1	A
Dieldrin	ND		ug/kg	1.14	0.571	1	A
4,4'-DDE	ND		ug/kg	1.83	0.423	1	A
4,4'-DDD	ND		ug/kg	1.83	0.652	1	A
4,4'-DDT	ND		ug/kg	3.43	1.47	1	A
Endosulfan I	ND		ug/kg	1.83	0.432	1	A
Endosulfan II	ND		ug/kg	1.83	0.611	1	A
Endosulfan sulfate	ND		ug/kg	0.762	0.363	1	A
Methoxychlor	ND		ug/kg	3.43	1.07	1	A
Toxaphene	ND		ug/kg	34.3	9.60	1	A
cis-Chlordane	ND		ug/kg	2.28	0.637	1	A
trans-Chlordane	ND		ug/kg	2.28	0.603	1	A
Chlordane	ND		ug/kg	14.8	6.06	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-05
 Client ID: RB14_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:20
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	B
Decachlorobiphenyl	92		30-150	B
2,4,5,6-Tetrachloro-m-xylene	87		30-150	A
Decachlorobiphenyl	100		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-05
 Client ID: RB14_0-2
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:20
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/10/19 23:33
 Analyst: SL
 Percent Solids: 86%
 Methylation Date: 01/09/19 23:01

Extraction Method: EPA 8151A
 Extraction Date: 01/09/19 01:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	191	12.0	1	A
2,4,5-T	ND		ug/kg	191	5.91	1	A
2,4,5-TP (Silvex)	ND		ug/kg	191	5.07	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	86		30-150	A
DCAA	83		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-06
 Client ID: RB14_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:25
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/10/19 13:20
 Analyst: BM
 Percent Solids: 86%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:44
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.77	0.348	1	A
Lindane	ND		ug/kg	0.740	0.330	1	A
Alpha-BHC	ND		ug/kg	0.740	0.210	1	A
Beta-BHC	ND		ug/kg	1.77	0.673	1	A
Heptachlor	ND		ug/kg	0.887	0.398	1	A
Aldrin	ND		ug/kg	1.77	0.625	1	A
Heptachlor epoxide	ND		ug/kg	3.33	0.998	1	A
Endrin	ND		ug/kg	0.740	0.303	1	A
Endrin aldehyde	ND		ug/kg	2.22	0.776	1	A
Endrin ketone	ND		ug/kg	1.77	0.457	1	A
Dieldrin	ND		ug/kg	1.11	0.555	1	A
4,4'-DDE	ND		ug/kg	1.77	0.410	1	A
4,4'-DDD	ND		ug/kg	1.77	0.633	1	A
4,4'-DDT	ND		ug/kg	3.33	1.43	1	A
Endosulfan I	ND		ug/kg	1.77	0.419	1	A
Endosulfan II	ND		ug/kg	1.77	0.593	1	A
Endosulfan sulfate	ND		ug/kg	0.740	0.352	1	A
Methoxychlor	ND		ug/kg	3.33	1.04	1	A
Toxaphene	ND		ug/kg	33.3	9.32	1	A
cis-Chlordane	ND		ug/kg	2.22	0.618	1	A
trans-Chlordane	ND		ug/kg	2.22	0.586	1	A
Chlordane	ND		ug/kg	14.4	5.88	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-06
 Client ID: RB14_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:25
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	93		30-150	B
Decachlorobiphenyl	97		30-150	B
2,4,5,6-Tetrachloro-m-xylene	97		30-150	A
Decachlorobiphenyl	107		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-06
 Client ID: RB14_18-20
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:25
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/10/19 23:53
 Analyst: SL
 Percent Solids: 86%
 Methylation Date: 01/09/19 23:01

Extraction Method: EPA 8151A
 Extraction Date: 01/09/19 01:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	190	12.0	1	A
2,4,5-T	ND		ug/kg	190	5.90	1	A
2,4,5-TP (Silvex)	ND		ug/kg	190	5.06	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	99		30-150	A
DCAA	77		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-07
 Client ID: RB14_23-25
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:30
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/14/19 18:26
 Analyst: SL
 Percent Solids: 82%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:44
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.86	0.365	1	A
Lindane	ND		ug/kg	0.776	0.347	1	A
Alpha-BHC	ND		ug/kg	0.776	0.220	1	A
Beta-BHC	ND		ug/kg	1.86	0.706	1	A
Heptachlor	ND		ug/kg	0.932	0.418	1	A
Aldrin	ND		ug/kg	1.86	0.656	1	A
Heptachlor epoxide	ND		ug/kg	3.49	1.05	1	A
Endrin	ND		ug/kg	0.776	0.318	1	A
Endrin aldehyde	ND		ug/kg	2.33	0.815	1	A
Endrin ketone	ND		ug/kg	1.86	0.480	1	A
Dieldrin	ND		ug/kg	1.16	0.582	1	A
4,4'-DDE	ND		ug/kg	1.86	0.431	1	A
4,4'-DDD	ND		ug/kg	1.86	0.664	1	A
4,4'-DDT	ND		ug/kg	3.49	1.50	1	A
Endosulfan I	ND		ug/kg	1.86	0.440	1	A
Endosulfan II	ND		ug/kg	1.86	0.623	1	A
Endosulfan sulfate	ND		ug/kg	0.776	0.370	1	A
Methoxychlor	ND		ug/kg	3.49	1.09	1	A
Toxaphene	ND		ug/kg	34.9	9.78	1	A
cis-Chlordane	ND		ug/kg	2.33	0.649	1	A
trans-Chlordane	ND		ug/kg	2.33	0.615	1	A
Chlordane	ND		ug/kg	15.1	6.17	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-07
 Client ID: RB14_23-25
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:30
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	115		30-150	B
Decachlorobiphenyl	155	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	133		30-150	A
Decachlorobiphenyl	148		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-07
 Client ID: RB14_23-25
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:30
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/11/19 00:13
 Analyst: SL
 Percent Solids: 82%
 Methylation Date: 01/09/19 23:01

Extraction Method: EPA 8151A
 Extraction Date: 01/09/19 01:20

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	200	12.6	1	A
2,4,5-T	ND		ug/kg	200	6.22	1	A
2,4,5-TP (Silvex)	ND		ug/kg	200	5.33	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	108		30-150	A
DCAA	100		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-08
 Client ID: RB14_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:35
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/10/19 13:46
 Analyst: BM
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 01/08/19 05:44
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.73	0.339	1	A
Lindane	ND		ug/kg	0.721	0.322	1	A
Alpha-BHC	ND		ug/kg	0.721	0.205	1	A
Beta-BHC	ND		ug/kg	1.73	0.656	1	A
Heptachlor	ND		ug/kg	0.865	0.388	1	A
Aldrin	ND		ug/kg	1.73	0.609	1	A
Heptachlor epoxide	ND		ug/kg	3.24	0.973	1	A
Endrin	ND		ug/kg	0.721	0.296	1	A
Endrin aldehyde	ND		ug/kg	2.16	0.757	1	A
Endrin ketone	ND		ug/kg	1.73	0.445	1	A
Dieldrin	ND		ug/kg	1.08	0.541	1	A
4,4'-DDE	ND		ug/kg	1.73	0.400	1	A
4,4'-DDD	ND		ug/kg	1.73	0.617	1	A
4,4'-DDT	ND		ug/kg	3.24	1.39	1	A
Endosulfan I	ND		ug/kg	1.73	0.409	1	A
Endosulfan II	ND		ug/kg	1.73	0.578	1	A
Endosulfan sulfate	ND		ug/kg	0.721	0.343	1	A
Methoxychlor	ND		ug/kg	3.24	1.01	1	A
Toxaphene	ND		ug/kg	32.4	9.08	1	A
cis-Chlordane	ND		ug/kg	2.16	0.603	1	A
trans-Chlordane	ND		ug/kg	2.16	0.571	1	A
Chlordane	ND		ug/kg	14.0	5.73	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-08
 Client ID: RB14_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:35
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	101		30-150	B
Decachlorobiphenyl	107		30-150	B
2,4,5,6-Tetrachloro-m-xylene	91		30-150	A
Decachlorobiphenyl	99		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-08
 Client ID: RB14_33-35
 Sample Location: BRONX, NY

Date Collected: 01/07/19 12:35
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/11/19 00:52
 Analyst: SL
 Percent Solids: 90%
 Methylation Date: 01/09/19 23:01

Extraction Method: EPA 8151A
 Extraction Date: 01/09/19 01:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	183	11.5	1	B
2,4,5-T	ND		ug/kg	183	5.66	1	A
2,4,5-TP (Silvex)	ND		ug/kg	183	4.86	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	89		30-150	A
DCAA	82		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-09
Client ID: SODUP04_010719
Sample Location: BRONX, NY

Date Collected: 01/07/19 00:00
Date Received: 01/07/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 01/10/19 13:58
Analyst: BM
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 01/08/19 05:44
Cleanup Method: EPA 3620B
Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.87	0.367	1	A
Lindane	ND		ug/kg	0.780	0.349	1	A
Alpha-BHC	ND		ug/kg	0.780	0.222	1	A
Beta-BHC	ND		ug/kg	1.87	0.710	1	A
Heptachlor	ND		ug/kg	0.937	0.420	1	A
Aldrin	ND		ug/kg	1.87	0.660	1	A
Heptachlor epoxide	ND		ug/kg	3.51	1.05	1	A
Endrin	ND		ug/kg	0.780	0.320	1	A
Endrin aldehyde	ND		ug/kg	2.34	0.820	1	A
Endrin ketone	ND		ug/kg	1.87	0.482	1	A
Dieldrin	ND		ug/kg	1.17	0.585	1	A
4,4'-DDE	ND		ug/kg	1.87	0.433	1	A
4,4'-DDD	ND		ug/kg	1.87	0.668	1	A
4,4'-DDT	ND		ug/kg	3.51	1.51	1	A
Endosulfan I	ND		ug/kg	1.87	0.442	1	A
Endosulfan II	ND		ug/kg	1.87	0.626	1	A
Endosulfan sulfate	ND		ug/kg	0.780	0.372	1	A
Methoxychlor	ND		ug/kg	3.51	1.09	1	A
Toxaphene	ND		ug/kg	35.1	9.83	1	A
cis-Chlordane	ND		ug/kg	2.34	0.652	1	A
trans-Chlordane	ND		ug/kg	2.34	0.618	1	A
Chlordane	ND		ug/kg	15.2	6.20	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-09
 Client ID: SODUP04_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 00:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	104		30-150	B
Decachlorobiphenyl	87		30-150	B
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	84		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-09
 Client ID: SODUP04_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 00:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/11/19 01:12
 Analyst: SL
 Percent Solids: 83%
 Methylation Date: 01/09/19 23:01

Extraction Method: EPA 8151A
 Extraction Date: 01/09/19 01:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	199	12.6	1	A
2,4,5-T	ND		ug/kg	199	6.18	1	A
2,4,5-TP (Silvex)	ND		ug/kg	199	5.30	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	106		30-150	A
DCAA	84		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-11
 Client ID: SOFB03_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 14:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/10/19 13:53
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/08/19 09:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-11
 Client ID: SOFB03_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 14:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	52		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	54		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-11
 Client ID: SOFB03_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 14:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/10/19 20:16
 Analyst: SL

Extraction Method: EPA 8151A
 Extraction Date: 01/09/19 18:22

Methylation Date: 01/10/19 03:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	103		30-150	A
DCAA	88		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/08/19 11:20
Analyst: SL

Extraction Method: EPA 3546
Extraction Date: 01/07/19 06:46
Cleanup Method: EPA 3620B
Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-06,08-09 Batch: WG1195277-1						
Delta-BHC	ND		ug/kg	1.52	0.297	A
Lindane	ND		ug/kg	0.633	0.283	A
Alpha-BHC	ND		ug/kg	0.633	0.180	A
Beta-BHC	ND		ug/kg	1.52	0.576	A
Heptachlor	ND		ug/kg	0.759	0.340	A
Aldrin	ND		ug/kg	1.52	0.535	A
Heptachlor epoxide	ND		ug/kg	2.85	0.854	A
Endrin	ND		ug/kg	0.633	0.259	A
Endrin aldehyde	ND		ug/kg	1.90	0.664	A
Endrin ketone	ND		ug/kg	1.52	0.391	A
Dieldrin	ND		ug/kg	0.949	0.475	A
4,4'-DDE	ND		ug/kg	1.52	0.351	A
4,4'-DDD	ND		ug/kg	1.52	0.542	A
4,4'-DDT	ND		ug/kg	2.85	1.22	A
Endosulfan I	ND		ug/kg	1.52	0.359	A
Endosulfan II	ND		ug/kg	1.52	0.508	A
Endosulfan sulfate	ND		ug/kg	0.633	0.301	A
Methoxychlor	ND		ug/kg	2.85	0.886	A
Toxaphene	ND		ug/kg	28.5	7.97	A
cis-Chlordane	ND		ug/kg	1.90	0.529	A
trans-Chlordane	ND		ug/kg	1.90	0.501	A
Chlordane	ND		ug/kg	12.3	5.03	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 01/08/19 11:20
 Analyst: SL

Extraction Method: EPA 3546
 Extraction Date: 01/07/19 06:46
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-06,08-09 Batch: WG1195277-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	109		30-150	B
Decachlorobiphenyl	112		30-150	B
2,4,5,6-Tetrachloro-m-xylene	118		30-150	A
Decachlorobiphenyl	143		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/10/19 12:25
Analyst: BM

Extraction Method: EPA 3510C
Extraction Date: 01/08/19 09:11

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 11 Batch: WG1195638-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	ND		ug/l	0.014	0.002	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Endrin ketone	ND		ug/l	0.029	0.003	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
4,4'-DDT	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
 Analytical Date: 01/10/19 12:25
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/08/19 09:11

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 11 Batch: WG1195638-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	63		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 01/10/19 21:15
Analyst: SL

Extraction Method: EPA 8151A
Extraction Date: 01/09/19 01:20

Methylation Date: 01/09/19 23:01

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-09 Batch: WG1195880-1						
2,4-D	ND		ug/kg	162	10.2	A
2,4,5-T	ND		ug/kg	162	5.02	A
2,4,5-TP (Silvex)	ND		ug/kg	162	4.30	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	85		30-150	A
DCAA	73		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 01/10/19 11:42
Analyst: KEG

Extraction Method: EPA 8151A
Extraction Date: 01/09/19 18:22

Methylation Date: 01/10/19 03:11

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 11 Batch: WG1196169-1						
2,4-D	ND		ug/l	10.0	0.498	A
2,4,5-T	ND		ug/l	2.00	0.531	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	113		30-150	A
DCAA	89		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/11/19 14:44
Analyst: BM

Extraction Method: EPA 3546
Extraction Date: 01/07/19 06:46
Cleanup Method: EPA 3620B
Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 07 Batch: WG1196837-1						
Delta-BHC	ND		ug/kg	1.52	0.297	A
Lindane	ND		ug/kg	0.633	0.283	A
Alpha-BHC	ND		ug/kg	0.633	0.180	A
Beta-BHC	ND		ug/kg	1.52	0.576	A
Heptachlor	ND		ug/kg	0.759	0.340	A
Aldrin	ND		ug/kg	1.52	0.535	A
Heptachlor epoxide	ND		ug/kg	2.85	0.854	A
Endrin	ND		ug/kg	0.633	0.259	A
Endrin aldehyde	ND		ug/kg	1.90	0.664	A
Endrin ketone	ND		ug/kg	1.52	0.391	A
Dieldrin	ND		ug/kg	0.949	0.475	A
4,4'-DDE	ND		ug/kg	1.52	0.351	A
4,4'-DDD	ND		ug/kg	1.52	0.542	A
4,4'-DDT	ND		ug/kg	2.85	1.22	A
Endosulfan I	ND		ug/kg	1.52	0.359	A
Endosulfan II	ND		ug/kg	1.52	0.508	A
Endosulfan sulfate	ND		ug/kg	0.633	0.301	A
Methoxychlor	ND		ug/kg	2.85	0.886	A
Toxaphene	ND		ug/kg	28.5	7.97	A
cis-Chlordane	ND		ug/kg	1.90	0.529	A
trans-Chlordane	ND		ug/kg	1.90	0.501	A
Chlordane	ND		ug/kg	12.3	5.03	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 01/11/19 14:44
 Analyst: BM

Extraction Method: EPA 3546
 Extraction Date: 01/07/19 06:46
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/08/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 07 Batch: WG1196837-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	123		30-150	B
Decachlorobiphenyl	152	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	131		30-150	A
Decachlorobiphenyl	154	Q	30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-06,08-09 Batch: WG1195277-2 WG1195277-3									
Delta-BHC	114		101		30-150	12		30	A
Lindane	117		100		30-150	16		30	A
Alpha-BHC	126		101		30-150	22		30	A
Beta-BHC	103		92		30-150	11		30	A
Heptachlor	122		104		30-150	16		30	A
Aldrin	114		95		30-150	18		30	A
Heptachlor epoxide	116		104		30-150	11		30	A
Endrin	130		116		30-150	11		30	A
Endrin aldehyde	69		67		30-150	3		30	A
Endrin ketone	91		92		30-150	1		30	A
Dieldrin	135		117		30-150	14		30	A
4,4'-DDE	112		88		30-150	24		30	A
4,4'-DDD	123		109		30-150	12		30	A
4,4'-DDT	131		115		30-150	13		30	A
Endosulfan I	111		97		30-150	13		30	A
Endosulfan II	112		101		30-150	10		30	A
Endosulfan sulfate	60		70		30-150	15		30	A
Methoxychlor	129		115		30-150	11		30	A
cis-Chlordane	97		85		30-150	13		30	A
trans-Chlordane	79		76		30-150	4		30	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-06,08-09 Batch: WG1195277-2 WG1195277-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	115		100		30-150	B
Decachlorobiphenyl	128		113		30-150	B
2,4,5,6-Tetrachloro-m-xylene	107		92		30-150	A
Decachlorobiphenyl	141		123		30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 11 Batch: WG1195638-2 WG1195638-3									
Delta-BHC	72		83		30-150	14		20	A
Lindane	72		78		30-150	7		20	A
Alpha-BHC	75		82		30-150	9		20	A
Beta-BHC	76		88		30-150	14		20	A
Heptachlor	72		78		30-150	8		20	A
Aldrin	71		76		30-150	8		20	A
Heptachlor epoxide	77		84		30-150	9		20	A
Endrin	75		83		30-150	11		20	A
Endrin aldehyde	59		62		30-150	5		20	A
Endrin ketone	69		82		30-150	17		20	A
Dieldrin	77		85		30-150	9		20	A
4,4'-DDE	74		82		30-150	10		20	A
4,4'-DDD	76		79		30-150	4		20	A
4,4'-DDT	71		75		30-150	6		20	A
Endosulfan I	71		78		30-150	10		20	A
Endosulfan II	71		76		30-150	7		20	A
Endosulfan sulfate	65		78		30-150	19		20	A
Methoxychlor	71		83		30-150	16		20	A
cis-Chlordane	64		69		30-150	7		20	A
trans-Chlordane	69		75		30-150	9		20	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 11 Batch: WG1195638-2 WG1195638-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	72		81		30-150	A
Decachlorobiphenyl	36		38		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		81		30-150	B
Decachlorobiphenyl	36		44		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-09 Batch: WG1195880-2 WG1195880-3									
2,4-D	105		117		30-150	11		30	A
2,4,5-T	90		89		30-150	1		30	A
2,4,5-TP (Silvex)	87		86		30-150	1		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	86		89		30-150	A
DCAA	95		92		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 11 Batch: WG1196169-2 WG1196169-3									
2,4-D	100		101		30-150	1		25	A
2,4,5-T	100		98		30-150	2		25	A
2,4,5-TP (Silvex)	99		100		30-150	1		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	101		100		30-150	A
DCAA	97		96		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 07 Batch: WG1196837-2 WG1196837-3									
Delta-BHC	112		101		30-150	10		30	A
Lindane	119		103		30-150	14		30	A
Alpha-BHC	130		110		30-150	17		30	A
Beta-BHC	108		96		30-150	12		30	A
Heptachlor	124		107		30-150	15		30	A
Aldrin	123		107		30-150	14		30	A
Heptachlor epoxide	112		108		30-150	4		30	A
Endrin	132		123		30-150	7		30	A
Endrin aldehyde	69		72		30-150	4		30	A
Endrin ketone	93		97		30-150	4		30	A
Dieldrin	124		117		30-150	6		30	A
4,4'-DDE	127		103		30-150	21		30	A
4,4'-DDD	127		117		30-150	8		30	A
4,4'-DDT	132		122		30-150	8		30	A
Endosulfan I	117		107		30-150	9		30	A
Endosulfan II	115		108		30-150	6		30	A
Endosulfan sulfate	42		54		30-150	25		30	A
Methoxychlor	130		124		30-150	5		30	A
cis-Chlordane	103		96		30-150	7		30	A
trans-Chlordane	82		84		30-150	2		30	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 07 Batch: WG1196837-2 WG1196837-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	115		104		30-150	B
Decachlorobiphenyl	165	Q	155	Q	30-150	B
2,4,5,6-Tetrachloro-m-xylene	120		104		30-150	A
Decachlorobiphenyl	148		138		30-150	A

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1195880-4 WG1195880-5 QC Sample: L1900707-03 Client ID: RB13_22-24													
2,4-D	ND	195	157J	81		152J	77		30-150	3		30	A
2,4,5-T	ND	195	148J	76		143J	73		30-150	3		30	A
2,4,5-TP (Silvex)	ND	195	146J	75		145J	74		30-150	1		30	A

<i>Surrogate</i>	<i>MS</i>		<i>MSD</i>		<i>Acceptance Criteria</i>	<i>Column</i>
	<i>% Recovery</i>	<i>Qualifier</i>	<i>% Recovery</i>	<i>Qualifier</i>		
DCAA	104		99		30-150	A
DCAA	93		88		30-150	B

METALS

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-01

Date Collected: 01/07/19 10:45

Client ID: RB13_0-2

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	8550		mg/kg	8.88	2.40	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Antimony, Total	0.915	J	mg/kg	4.44	0.338	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Arsenic, Total	4.10		mg/kg	0.888	0.185	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Barium, Total	42.8		mg/kg	0.888	0.154	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Beryllium, Total	0.302	J	mg/kg	0.444	0.029	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Cadmium, Total	0.178	J	mg/kg	0.888	0.087	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Calcium, Total	2430		mg/kg	8.88	3.11	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Chromium, Total	12.0		mg/kg	0.888	0.085	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Cobalt, Total	9.94		mg/kg	1.78	0.147	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Copper, Total	19.8		mg/kg	0.888	0.229	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Iron, Total	15000		mg/kg	4.44	0.802	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Lead, Total	76.2		mg/kg	4.44	0.238	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Magnesium, Total	2730		mg/kg	8.88	1.37	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Manganese, Total	256		mg/kg	0.888	0.141	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Mercury, Total	0.468		mg/kg	0.073	0.016	1	01/09/19 05:00	01/09/19 22:16	EPA 7471B	1,7471B	EA
Nickel, Total	11.7		mg/kg	2.22	0.215	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Potassium, Total	530		mg/kg	222	12.8	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Selenium, Total	0.249	J	mg/kg	1.78	0.229	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.888	0.251	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Sodium, Total	332		mg/kg	178	2.80	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.78	0.280	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Vanadium, Total	14.9		mg/kg	0.888	0.180	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB
Zinc, Total	120		mg/kg	4.44	0.260	2	01/08/19 20:10	01/09/19 20:14	EPA 3050B	1,6010D	AB

General Chemistry - Mansfield Lab

Chromium, Trivalent	12		mg/kg	0.93	0.93	1		01/09/19 20:14	NA	107,-	
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Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-02

Date Collected: 01/07/19 11:00

Client ID: RB13_18-20

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 84%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	9480		mg/kg	9.07	2.45	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.53	0.344	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Arsenic, Total	5.15		mg/kg	0.907	0.188	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Barium, Total	117		mg/kg	0.907	0.158	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Beryllium, Total	0.281	J	mg/kg	0.453	0.030	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.907	0.089	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Calcium, Total	3010		mg/kg	9.07	3.17	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Chromium, Total	22.4		mg/kg	0.907	0.087	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Cobalt, Total	7.46		mg/kg	1.81	0.150	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Copper, Total	14.0		mg/kg	0.907	0.234	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Iron, Total	18900		mg/kg	4.53	0.819	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Lead, Total	37.8		mg/kg	4.53	0.243	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Magnesium, Total	4360		mg/kg	9.07	1.40	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Manganese, Total	563		mg/kg	0.907	0.144	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Mercury, Total	0.066	J	mg/kg	0.075	0.016	1	01/09/19 05:00	01/09/19 22:18	EPA 7471B	1,7471B	EA
Nickel, Total	11.5		mg/kg	2.27	0.219	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Potassium, Total	516		mg/kg	227	13.0	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Selenium, Total	0.408	J	mg/kg	1.81	0.234	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.907	0.256	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Sodium, Total	152	J	mg/kg	181	2.86	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.81	0.286	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Vanadium, Total	27.1		mg/kg	0.907	0.184	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
Zinc, Total	56.0		mg/kg	4.53	0.266	2	01/08/19 20:10	01/09/19 20:18	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	22		mg/kg	0.95	0.95	1		01/09/19 20:18	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-03

Date Collected: 01/07/19 10:50

Client ID: RB13_22-24

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	3160		mg/kg	9.49	2.56	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Antimony, Total	ND		mg/kg	4.74	0.360	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Arsenic, Total	0.987		mg/kg	0.949	0.197	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Barium, Total	9.92		mg/kg	0.949	0.165	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Beryllium, Total	0.133	J	mg/kg	0.474	0.031	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Cadmium, Total	ND		mg/kg	0.949	0.093	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Calcium, Total	855		mg/kg	9.49	3.32	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Chromium, Total	6.86		mg/kg	0.949	0.091	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Cobalt, Total	2.34		mg/kg	1.90	0.157	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Copper, Total	4.71		mg/kg	0.949	0.245	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Iron, Total	6690		mg/kg	4.74	0.857	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Lead, Total	9.56		mg/kg	4.74	0.254	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Magnesium, Total	1420		mg/kg	9.49	1.46	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Manganese, Total	66.9		mg/kg	0.949	0.151	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Mercury, Total	ND		mg/kg	0.083	0.018	1	01/10/19 12:43	01/10/19 21:30	EPA 7471B	1,7471B	EA
Nickel, Total	5.44		mg/kg	2.37	0.230	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Potassium, Total	396		mg/kg	237	13.7	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Selenium, Total	ND		mg/kg	1.90	0.245	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Silver, Total	ND		mg/kg	0.949	0.268	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Sodium, Total	50.1	J	mg/kg	190	2.99	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Thallium, Total	ND		mg/kg	1.90	0.299	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Vanadium, Total	8.76		mg/kg	0.949	0.192	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
Zinc, Total	14.7		mg/kg	4.74	0.278	2	01/10/19 12:30	01/10/19 20:02	EPA 3050B	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	6.9		mg/kg	0.96	0.96	1		01/11/19 08:49	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-04

Date Collected: 01/07/19 10:55

Client ID: RB13_33-35

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 89%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4760		mg/kg	8.49	2.29	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.24	0.322	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Arsenic, Total	0.603	J	mg/kg	0.849	0.176	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Barium, Total	35.7		mg/kg	0.849	0.148	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Beryllium, Total	ND		mg/kg	0.424	0.028	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.849	0.083	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Calcium, Total	23400		mg/kg	8.49	2.97	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Chromium, Total	7.04		mg/kg	0.849	0.082	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Cobalt, Total	4.64		mg/kg	1.70	0.141	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Copper, Total	13.8		mg/kg	0.849	0.219	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Iron, Total	9510		mg/kg	4.24	0.766	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Lead, Total	2.76	J	mg/kg	4.24	0.228	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Magnesium, Total	16800		mg/kg	8.49	1.31	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Manganese, Total	179		mg/kg	0.849	0.135	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.072	0.015	1	01/09/19 05:00	01/09/19 22:21	EPA 7471B	1,7471B	EA
Nickel, Total	7.42		mg/kg	2.12	0.205	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Potassium, Total	1820		mg/kg	212	12.2	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Selenium, Total	0.518	J	mg/kg	1.70	0.219	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.849	0.240	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Sodium, Total	236		mg/kg	170	2.67	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.70	0.267	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Vanadium, Total	14.8		mg/kg	0.849	0.172	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
Zinc, Total	26.0		mg/kg	4.24	0.249	2	01/08/19 20:10	01/09/19 20:26	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	7.0		mg/kg	0.90	0.90	1		01/09/19 20:26	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-05

Date Collected: 01/07/19 12:20

Client ID: RB14_0-2

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	7870		mg/kg	9.15	2.47	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Antimony, Total	0.348	J	mg/kg	4.57	0.348	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Arsenic, Total	4.92		mg/kg	0.915	0.190	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Barium, Total	61.0		mg/kg	0.915	0.159	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Beryllium, Total	0.183	J	mg/kg	0.457	0.030	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Cadmium, Total	0.183	J	mg/kg	0.915	0.090	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Calcium, Total	33100		mg/kg	9.15	3.20	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Chromium, Total	18.9		mg/kg	0.915	0.088	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Cobalt, Total	5.76		mg/kg	1.83	0.152	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Copper, Total	24.4		mg/kg	0.915	0.236	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Iron, Total	13800		mg/kg	4.57	0.826	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Lead, Total	169		mg/kg	4.57	0.245	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Magnesium, Total	2710		mg/kg	9.15	1.41	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Manganese, Total	242		mg/kg	0.915	0.145	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Mercury, Total	0.186		mg/kg	0.075	0.016	1	01/09/19 05:00	01/09/19 22:23	EPA 7471B	1,7471B	EA
Nickel, Total	11.0		mg/kg	2.29	0.221	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Potassium, Total	1000		mg/kg	229	13.2	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Selenium, Total	0.430	J	mg/kg	1.83	0.236	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.915	0.259	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Sodium, Total	272		mg/kg	183	2.88	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.83	0.288	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Vanadium, Total	16.1		mg/kg	0.915	0.186	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
Zinc, Total	119		mg/kg	4.57	0.268	2	01/08/19 20:10	01/09/19 20:30	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	19	J	mg/kg	0.93	0.93	1		01/09/19 20:30	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-06

Date Collected: 01/07/19 12:25

Client ID: RB14_18-20

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	3360		mg/kg	9.00	2.43	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.50	0.342	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Arsenic, Total	0.846	J	mg/kg	0.900	0.187	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Barium, Total	11.5		mg/kg	0.900	0.157	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Beryllium, Total	0.126	J	mg/kg	0.450	0.030	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.900	0.088	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Calcium, Total	572		mg/kg	9.00	3.15	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Chromium, Total	7.34		mg/kg	0.900	0.086	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Cobalt, Total	2.85		mg/kg	1.80	0.149	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Copper, Total	4.34		mg/kg	0.900	0.232	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Iron, Total	7990		mg/kg	4.50	0.813	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Lead, Total	5.19		mg/kg	4.50	0.241	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Magnesium, Total	1340		mg/kg	9.00	1.39	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Manganese, Total	171		mg/kg	0.900	0.143	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.073	0.016	1	01/09/19 05:00	01/09/19 22:28	EPA 7471B	1,7471B	EA
Nickel, Total	5.40		mg/kg	2.25	0.218	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Potassium, Total	321		mg/kg	225	13.0	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	1.80	0.232	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.900	0.255	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Sodium, Total	35.6	J	mg/kg	180	2.84	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.80	0.284	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Vanadium, Total	10.3		mg/kg	0.900	0.183	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
Zinc, Total	14.8		mg/kg	4.50	0.264	2	01/08/19 20:10	01/09/19 20:34	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	7.3		mg/kg	0.93	0.93	1		01/09/19 20:34	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-07

Date Collected: 01/07/19 12:30

Client ID: RB14_23-25

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 82%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4380		mg/kg	9.26	2.50	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.63	0.352	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Arsenic, Total	0.852	J	mg/kg	0.926	0.193	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Barium, Total	12.2		mg/kg	0.926	0.161	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Beryllium, Total	0.139	J	mg/kg	0.463	0.031	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.926	0.091	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Calcium, Total	414		mg/kg	9.26	3.24	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Chromium, Total	8.44		mg/kg	0.926	0.089	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Cobalt, Total	4.06		mg/kg	1.85	0.154	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Copper, Total	7.55		mg/kg	0.926	0.239	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Iron, Total	9340		mg/kg	4.63	0.836	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Lead, Total	11.3		mg/kg	4.63	0.248	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Magnesium, Total	1650		mg/kg	9.26	1.43	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Manganese, Total	78.8		mg/kg	0.926	0.147	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.076	0.016	1	01/09/19 05:00	01/09/19 22:30	EPA 7471B	1,7471B	EA
Nickel, Total	6.96		mg/kg	2.32	0.224	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Potassium, Total	493		mg/kg	232	13.3	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	1.85	0.239	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.926	0.262	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Sodium, Total	55.6	J	mg/kg	185	2.92	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.85	0.292	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Vanadium, Total	11.1		mg/kg	0.926	0.188	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
Zinc, Total	16.9		mg/kg	4.63	0.271	2	01/08/19 20:10	01/09/19 20:39	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	8.4		mg/kg	0.97	0.97	1		01/09/19 20:39	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-08

Date Collected: 01/07/19 12:35

Client ID: RB14_33-35

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	7220		mg/kg	8.51	2.30	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Antimony, Total	3.31	J	mg/kg	4.26	0.324	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Arsenic, Total	0.613	J	mg/kg	0.851	0.177	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Barium, Total	46.7		mg/kg	0.851	0.148	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Beryllium, Total	ND		mg/kg	0.426	0.028	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.851	0.083	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Calcium, Total	10400		mg/kg	8.51	2.98	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Chromium, Total	21.4		mg/kg	0.851	0.082	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Cobalt, Total	11.2		mg/kg	1.70	0.141	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Copper, Total	9.33		mg/kg	0.851	0.220	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Iron, Total	11600		mg/kg	4.26	0.769	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Lead, Total	2.40	J	mg/kg	4.26	0.228	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Magnesium, Total	10500		mg/kg	8.51	1.31	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Manganese, Total	140		mg/kg	0.851	0.135	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.071	0.015	1	01/09/19 05:00	01/09/19 22:31	EPA 7471B	1,7471B	EA
Nickel, Total	17.0		mg/kg	2.13	0.206	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Potassium, Total	2480		mg/kg	213	12.3	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	1.70	0.220	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.851	0.241	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Sodium, Total	321		mg/kg	170	2.68	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.70	0.268	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Vanadium, Total	26.4		mg/kg	0.851	0.173	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
Zinc, Total	32.0		mg/kg	4.26	0.249	2	01/08/19 20:10	01/09/19 20:43	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	21		mg/kg	0.89	0.89	1		01/09/19 20:43	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-09

Date Collected: 01/07/19 00:00

Client ID: SODUP04_010719

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4800		mg/kg	9.28	2.50	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.64	0.352	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Arsenic, Total	0.835	J	mg/kg	0.928	0.193	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Barium, Total	13.2		mg/kg	0.928	0.161	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Beryllium, Total	0.167	J	mg/kg	0.464	0.031	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.928	0.091	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Calcium, Total	482		mg/kg	9.28	3.25	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Chromium, Total	10.2		mg/kg	0.928	0.089	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Cobalt, Total	4.53		mg/kg	1.86	0.154	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Copper, Total	8.60		mg/kg	0.928	0.239	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Iron, Total	9820		mg/kg	4.64	0.838	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Lead, Total	7.53		mg/kg	4.64	0.249	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Magnesium, Total	1850		mg/kg	9.28	1.43	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Manganese, Total	159		mg/kg	0.928	0.148	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.075	0.016	1	01/09/19 05:00	01/09/19 22:33	EPA 7471B	1,7471B	EA
Nickel, Total	8.05		mg/kg	2.32	0.224	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Potassium, Total	487		mg/kg	232	13.4	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	1.86	0.239	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.928	0.262	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Sodium, Total	56.5	J	mg/kg	186	2.92	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.86	0.292	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Vanadium, Total	12.7		mg/kg	0.928	0.188	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
Zinc, Total	19.7		mg/kg	4.64	0.272	2	01/08/19 20:10	01/09/19 20:47	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	10		mg/kg	0.96	0.96	1		01/09/19 20:47	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-11
 Client ID: SOFB03_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 14:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.100	0.032	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Antimony, Total	0.009	J	mg/l	0.050	0.007	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Arsenic, Total	ND		mg/l	0.005	0.002	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Barium, Total	0.002	J	mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Beryllium, Total	ND		mg/l	0.005	0.001	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Cadmium, Total	ND		mg/l	0.005	0.001	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Calcium, Total	ND		mg/l	0.100	0.035	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Chromium, Total	ND		mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Cobalt, Total	ND		mg/l	0.020	0.002	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Copper, Total	ND		mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Iron, Total	ND		mg/l	0.050	0.009	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Lead, Total	ND		mg/l	0.010	0.003	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Magnesium, Total	ND		mg/l	0.100	0.015	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Manganese, Total	ND		mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/08/19 10:55	01/08/19 18:43	EPA 7470A	1,7470A	MG
Nickel, Total	ND		mg/l	0.025	0.002	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Potassium, Total	ND		mg/l	2.50	0.237	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Selenium, Total	ND		mg/l	0.010	0.004	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Silver, Total	ND		mg/l	0.007	0.003	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Sodium, Total	ND		mg/l	2.00	0.120	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Thallium, Total	ND		mg/l	0.020	0.003	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Vanadium, Total	ND		mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
Zinc, Total	ND		mg/l	0.050	0.002	1	01/09/19 13:02	01/09/19 21:48	EPA 3005A	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/09/19 21:48	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 11 Batch: WG1195683-1									
Mercury, Total	ND	mg/l	0.00020	0.00006	1	01/08/19 10:55	01/08/19 18:06	1,7470A	MG

Prep Information

Digestion Method: EPA 7470A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst	
Total Metals - Mansfield Lab for sample(s): 01-02,04-09 Batch: WG1195823-1										
Aluminum, Total	ND	mg/kg	4.00	1.08	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Antimony, Total	ND	mg/kg	2.00	0.152	1	01/08/19 20:10	01/09/19 16:17	1,6010D	AB	
Arsenic, Total	ND	mg/kg	0.400	0.083	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Barium, Total	ND	mg/kg	0.400	0.070	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Beryllium, Total	ND	mg/kg	0.200	0.013	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Cadmium, Total	ND	mg/kg	0.400	0.039	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Calcium, Total	ND	mg/kg	4.00	1.40	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Chromium, Total	ND	mg/kg	0.400	0.038	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Cobalt, Total	ND	mg/kg	0.800	0.066	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Copper, Total	ND	mg/kg	0.400	0.103	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Iron, Total	ND	mg/kg	2.00	0.361	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Lead, Total	ND	mg/kg	2.00	0.107	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Magnesium, Total	ND	mg/kg	4.00	0.616	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Manganese, Total	ND	mg/kg	0.400	0.064	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Nickel, Total	ND	mg/kg	1.00	0.097	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Potassium, Total	ND	mg/kg	100	5.76	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Selenium, Total	0.128	J	mg/kg	0.800	0.103	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB
Silver, Total	ND	mg/kg	0.400	0.113	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Sodium, Total	1.64	J	mg/kg	80.0	1.26	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB
Thallium, Total	ND	mg/kg	0.800	0.126	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Vanadium, Total	ND	mg/kg	0.400	0.081	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	
Zinc, Total	ND	mg/kg	2.00	0.117	1	01/08/19 20:10	01/09/19 14:12	1,6010D	AB	



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3050B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-02,04-09 Batch: WG1195894-1									
Mercury, Total	ND	mg/kg	0.083	0.018	1	01/09/19 05:00	01/09/19 21:55	1,7471B	EA

Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 11 Batch: WG1196054-1									
Aluminum, Total	ND	mg/l	0.100	0.032	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Antimony, Total	ND	mg/l	0.050	0.007	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Arsenic, Total	ND	mg/l	0.005	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Barium, Total	ND	mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Beryllium, Total	ND	mg/l	0.005	0.001	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Cadmium, Total	ND	mg/l	0.005	0.001	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Calcium, Total	ND	mg/l	0.100	0.035	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Chromium, Total	ND	mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Cobalt, Total	ND	mg/l	0.020	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Copper, Total	ND	mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Iron, Total	ND	mg/l	0.050	0.009	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Lead, Total	ND	mg/l	0.010	0.003	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Magnesium, Total	ND	mg/l	0.100	0.015	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Manganese, Total	ND	mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Nickel, Total	ND	mg/l	0.025	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Potassium, Total	ND	mg/l	2.50	0.237	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Selenium, Total	ND	mg/l	0.010	0.004	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Silver, Total	ND	mg/l	0.007	0.003	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Sodium, Total	ND	mg/l	2.00	0.120	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Thallium, Total	ND	mg/l	0.020	0.003	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Vanadium, Total	ND	mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis Batch Quality Control

Zinc, Total	ND	mg/l	0.050	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
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Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG1196430-1									
Mercury, Total	ND	mg/kg	0.083	0.018	1	01/10/19 12:43	01/10/19 21:22	1,7471B	EA

Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 03 Batch: WG1196431-1									
Aluminum, Total	ND	mg/kg	4.00	1.08	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Antimony, Total	ND	mg/kg	2.00	0.152	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Arsenic, Total	ND	mg/kg	0.400	0.083	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Barium, Total	ND	mg/kg	0.400	0.070	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Beryllium, Total	ND	mg/kg	0.200	0.013	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Cadmium, Total	ND	mg/kg	0.400	0.039	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Calcium, Total	ND	mg/kg	4.00	1.40	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Chromium, Total	ND	mg/kg	0.400	0.038	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Cobalt, Total	ND	mg/kg	0.800	0.066	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Copper, Total	ND	mg/kg	0.400	0.103	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Iron, Total	ND	mg/kg	2.00	0.361	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Lead, Total	ND	mg/kg	2.00	0.107	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Magnesium, Total	ND	mg/kg	4.00	0.616	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Manganese, Total	ND	mg/kg	0.400	0.064	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Nickel, Total	ND	mg/kg	1.00	0.097	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Potassium, Total	ND	mg/kg	100	5.76	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Selenium, Total	ND	mg/kg	0.800	0.103	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Silver, Total	ND	mg/kg	0.400	0.113	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Sodium, Total	ND	mg/kg	80.0	1.26	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19

Method Blank Analysis Batch Quality Control

Thallium, Total	ND	mg/kg	0.800	0.126	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Vanadium, Total	ND	mg/kg	0.400	0.081	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC
Zinc, Total	ND	mg/kg	2.00	0.117	1	01/10/19 12:30	01/10/19 19:33	1,6010D	MC

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 Batch: WG1195683-2								
Mercury, Total	89		-		80-120	-		



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-09 Batch: WG1195823-2 SRM Lot Number: D101-540					
Aluminum, Total	74	-	50-151	-	
Antimony, Total	162	-	3-196	-	
Arsenic, Total	106	-	83-117	-	
Barium, Total	97	-	83-118	-	
Beryllium, Total	94	-	83-117	-	
Cadmium, Total	96	-	83-117	-	
Calcium, Total	94	-	81-119	-	
Chromium, Total	94	-	81-118	-	
Cobalt, Total	95	-	84-116	-	
Copper, Total	96	-	83-116	-	
Iron, Total	98	-	62-138	-	
Lead, Total	95	-	83-117	-	
Magnesium, Total	84	-	76-124	-	
Manganese, Total	95	-	82-118	-	
Nickel, Total	94	-	82-117	-	
Potassium, Total	87	-	71-130	-	
Selenium, Total	103	-	79-121	-	
Silver, Total	100	-	80-120	-	
Sodium, Total	100	-	72-127	-	
Thallium, Total	95	-	81-119	-	
Vanadium, Total	96	-	79-121	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-09 Batch: WG1195823-2 SRM Lot Number: D101-540					
Zinc, Total	97	-	81-119	-	
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-09 Batch: WG1195894-2 SRM Lot Number: D101-540					
Mercury, Total	77	-	65-135	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 Batch: WG1196054-2					
Aluminum, Total	96	-	80-120	-	
Antimony, Total	95	-	80-120	-	
Arsenic, Total	106	-	80-120	-	
Barium, Total	93	-	80-120	-	
Beryllium, Total	93	-	80-120	-	
Cadmium, Total	102	-	80-120	-	
Calcium, Total	98	-	80-120	-	
Chromium, Total	95	-	80-120	-	
Cobalt, Total	94	-	80-120	-	
Copper, Total	94	-	80-120	-	
Iron, Total	98	-	80-120	-	
Lead, Total	100	-	80-120	-	
Magnesium, Total	101	-	80-120	-	
Manganese, Total	91	-	80-120	-	
Nickel, Total	95	-	80-120	-	
Potassium, Total	94	-	80-120	-	
Selenium, Total	114	-	80-120	-	
Silver, Total	101	-	80-120	-	
Sodium, Total	96	-	80-120	-	
Thallium, Total	102	-	80-120	-	
Vanadium, Total	98	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 Batch: WG1196054-2					
Zinc, Total	101	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG1196430-2 SRM Lot Number: D101-540					
Mercury, Total	85	-	65-135	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG1196431-2 SRM Lot Number: D101-540					
Aluminum, Total	69	-	50-151	-	
Antimony, Total	141	-	3-196	-	
Arsenic, Total	94	-	83-117	-	
Barium, Total	90	-	83-118	-	
Beryllium, Total	92	-	83-117	-	
Cadmium, Total	89	-	83-117	-	
Calcium, Total	90	-	81-119	-	
Chromium, Total	90	-	81-118	-	
Cobalt, Total	90	-	84-116	-	
Copper, Total	92	-	83-116	-	
Iron, Total	86	-	62-138	-	
Lead, Total	86	-	83-117	-	
Magnesium, Total	85	-	76-124	-	
Manganese, Total	87	-	82-118	-	
Nickel, Total	90	-	82-117	-	
Potassium, Total	83	-	71-130	-	
Selenium, Total	92	-	79-121	-	
Silver, Total	91	-	80-120	-	
Sodium, Total	97	-	72-127	-	
Thallium, Total	90	-	81-119	-	
Vanadium, Total	91	-	79-121	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 Batch: WG1196431-2 SRM Lot Number: D101-540					
Zinc, Total	90	-	81-119	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 QC Batch ID: WG1195683-3 QC Sample: L1900487-09 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.00499	100		-	-		75-125	-		20

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-09 QC Batch ID: WG1195823-3 QC Sample: L1900622-01 Client ID: MS Sample									
Aluminum, Total	3970	181	4480	281	Q	-	75-125	-	20
Antimony, Total	1.47J	45.3	41.0	90		-	75-125	-	20
Arsenic, Total	5.00	10.9	16.1	102		-	75-125	-	20
Barium, Total	211	181	407	108		-	75-125	-	20
Beryllium, Total	0.174J	4.53	3.90	86		-	75-125	-	20
Cadmium, Total	1.14	4.62	5.02	84		-	75-125	-	20
Calcium, Total	45300	906	43200	0	Q	-	75-125	-	20
Chromium, Total	13.3	18.1	32.7	107		-	75-125	-	20
Cobalt, Total	3.41	45.3	41.0	83		-	75-125	-	20
Copper, Total	13.4	22.6	33.8	90		-	75-125	-	20
Iron, Total	8430	90.6	7600	0	Q	-	75-125	-	20
Lead, Total	1890	46.2	1200	0	Q	-	75-125	-	20
Magnesium, Total	1820	906	2640	90		-	75-125	-	20
Manganese, Total	216	45.3	230	31	Q	-	75-125	-	20
Nickel, Total	10.3	45.3	46.5	80		-	75-125	-	20
Potassium, Total	878	906	1780	100		-	75-125	-	20
Selenium, Total	0.432J	10.9	11.2	103		-	75-125	-	20
Silver, Total	ND	27.2	29.0	107		-	75-125	-	20
Sodium, Total	605	906	1430	91		-	75-125	-	20
Thallium, Total	ND	10.9	7.89	72	Q	-	75-125	-	20
Vanadium, Total	20.6	45.3	57.1	80		-	75-125	-	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-09 QC Batch ID: WG1195823-3 QC Sample: L1900622-01 Client ID: MS Sample									
Zinc, Total	669	45.3	575	0	Q	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-09 QC Batch ID: WG1195894-3 QC Sample: L1900686-14 Client ID: MS Sample									
Mercury, Total	ND	0.139	0.150	108	-	-	80-120	-	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 QC Batch ID: WG1196054-3 QC Sample: L1900487-09 Client ID: MS Sample									
Aluminum, Total	ND	2	1.95	98	-	-	75-125	-	20
Antimony, Total	ND	0.5	0.473	95	-	-	75-125	-	20
Arsenic, Total	ND	0.12	0.125	104	-	-	75-125	-	20
Barium, Total	ND	2	1.90	95	-	-	75-125	-	20
Beryllium, Total	ND	0.05	0.048	96	-	-	75-125	-	20
Cadmium, Total	ND	0.051	0.052	102	-	-	75-125	-	20
Calcium, Total	0.066J	10	9.95	100	-	-	75-125	-	20
Chromium, Total	ND	0.2	0.190	95	-	-	75-125	-	20
Cobalt, Total	ND	0.5	0.468	94	-	-	75-125	-	20
Copper, Total	ND	0.25	0.234	94	-	-	75-125	-	20
Iron, Total	0.020J	1	1.02	102	-	-	75-125	-	20
Lead, Total	ND	0.51	0.508	100	-	-	75-125	-	20
Magnesium, Total	0.033J	10	10.5	105	-	-	75-125	-	20
Manganese, Total	ND	0.5	0.460	92	-	-	75-125	-	20
Nickel, Total	ND	0.5	0.472	94	-	-	75-125	-	20
Potassium, Total	ND	10	9.69	97	-	-	75-125	-	20
Selenium, Total	ND	0.12	0.134	112	-	-	75-125	-	20
Silver, Total	ND	0.05	0.050	100	-	-	75-125	-	20
Sodium, Total	0.191J	10	9.93	99	-	-	75-125	-	20
Thallium, Total	ND	0.12	0.120	100	-	-	75-125	-	20
Vanadium, Total	ND	0.5	0.482	96	-	-	75-125	-	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 QC Batch ID: WG1196054-3 QC Sample: L1900487-09 Client ID: MS Sample									
Zinc, Total	0.007J	0.5	0.508	102	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1196430-3 WG1196430-4 QC Sample: L1900707-03 Client ID: RB13_22-24									
Mercury, Total	ND	0.162	0.174	107	0.186	110	80-120	7	20

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits			
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1196431-3 WG1196431-4 QC Sample: L1900707-03 Client ID: RB13_22-24												
Aluminum, Total	3160	186	3940	420	Q	5820	1450	Q	75-125	39	Q	20
Antimony, Total	ND	46.5	40.5	87		38.2	84		75-125	6		20
Arsenic, Total	0.987	11.2	12.3	101		12.1	101		75-125	2		20
Barium, Total	9.92	186	183	93		184	95		75-125	1		20
Beryllium, Total	0.133J	4.65	4.65	100		4.64	102		75-125	0		20
Cadmium, Total	ND	4.74	4.54	96		4.39	94		75-125	3		20
Calcium, Total	855	930	1700	91		1830	107		75-125	7		20
Chromium, Total	6.86	18.6	23.8	91		27.1	111		75-125	13		20
Cobalt, Total	2.34	46.5	43.8	89		42.8	88		75-125	2		20
Copper, Total	4.71	23.2	26.5	94		28.8	105		75-125	8		20
Iron, Total	6690	93	7210	559	Q	9290	2840	Q	75-125	25	Q	20
Lead, Total	9.56	47.4	52.7	91		53.3	94		75-125	1		20
Magnesium, Total	1420	930	2420	108		2910	163	Q	75-125	18		20
Manganese, Total	66.9	46.5	113	99		136	151	Q	75-125	18		20
Nickel, Total	5.44	46.5	47.2	90		47.5	92		75-125	1		20
Potassium, Total	396	930	1330	100		1550	126	Q	75-125	15		20
Selenium, Total	ND	11.2	11.0	99		10.4	95		75-125	6		20
Silver, Total	ND	27.9	29.4	105		29.5	108		75-125	0		20
Sodium, Total	50.1J	930	996	107		991	108		75-125	1		20
Thallium, Total	ND	11.2	9.93	89		9.46	86		75-125	5		20
Vanadium, Total	8.76	46.5	53.6	96		55.9	103		75-125	4		20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 03 QC Batch ID: WG1196431-3 WG1196431-4 QC Sample: L1900707-03 Client ID: RB13_22-24									
Zinc, Total	14.7	46.5	59.4	96	61.7	103	75-125	4	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 QC Batch ID: WG1195683-4 QC Sample: L1900487-09 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-09 QC Batch ID: WG1195823-4 QC Sample: L1900622-01 Client ID: DUP Sample						
Lead, Total	1890	656	mg/kg	97	Q	20
Total Metals - Mansfield Lab Associated sample(s): 01-02,04-09 QC Batch ID: WG1195894-4 QC Sample: L1900686-14 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/kg	NC		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 QC Batch ID: WG1196054-4 QC Sample: L1900487-09 Client ID: DUP Sample					
Aluminum, Total	ND	ND	mg/l	NC	20
Antimony, Total	ND	ND	mg/l	NC	20
Arsenic, Total	ND	0.003J	mg/l	NC	20
Barium, Total	ND	0.002J	mg/l	NC	20
Beryllium, Total	ND	ND	mg/l	NC	20
Cadmium, Total	ND	ND	mg/l	NC	20
Calcium, Total	0.066J	0.065J	mg/l	NC	20
Chromium, Total	ND	ND	mg/l	NC	20
Cobalt, Total	ND	ND	mg/l	NC	20
Copper, Total	ND	ND	mg/l	NC	20
Lead, Total	ND	ND	mg/l	NC	20
Magnesium, Total	0.033J	0.028J	mg/l	NC	20
Manganese, Total	ND	ND	mg/l	NC	20
Nickel, Total	ND	ND	mg/l	NC	20
Potassium, Total	ND	ND	mg/l	NC	20
Selenium, Total	ND	ND	mg/l	NC	20
Silver, Total	ND	ND	mg/l	NC	20
Sodium, Total	0.191J	0.289J	mg/l	NC	20
Thallium, Total	ND	ND	mg/l	NC	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 11 QC Batch ID: WG1196054-4 QC Sample: L1900487-09 Client ID: DUP Sample					
Vanadium, Total	ND	ND	mg/l	NC	20
Zinc, Total	0.007J	0.006J	mg/l	NC	20
Total Metals - Mansfield Lab Associated sample(s): 11 QC Batch ID: WG1196054-4 QC Sample: L1900487-09 Client ID: DUP Sample					
Iron, Total	0.020J	0.015J	mg/l	NC	20

INORGANICS & MISCELLANEOUS

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-01
Client ID: RB13_0-2
Sample Location: BRONX, NY

Date Collected: 01/07/19 10:45
Date Received: 01/07/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.6		%	0.100	NA	1	-	01/08/19 12:10	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.23	1	01/08/19 10:15	01/09/19 11:33	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.934	0.187	1	01/08/19 18:15	01/09/19 09:14	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-02

Date Collected: 01/07/19 11:00

Client ID: RB13_18-20

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.0		%	0.100	NA	1	-	01/08/19 12:10	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.25	1	01/08/19 10:15	01/09/19 11:34	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.952	0.190	1	01/08/19 18:15	01/09/19 09:14	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-03

Date Collected: 01/07/19 10:50

Client ID: RB13_22-24

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.0		%	0.100	NA	1	-	01/08/19 12:10	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.25	1	01/08/19 10:15	01/09/19 11:35	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.964	0.193	1	01/10/19 15:30	01/11/19 08:49	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-04

Date Collected: 01/07/19 10:55

Client ID: RB13_33-35

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.7		%	0.100	NA	1	-	01/08/19 12:10	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	01/08/19 10:15	01/09/19 11:39	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.902	0.180	1	01/08/19 18:15	01/09/19 09:14	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-05

Date Collected: 01/07/19 12:20

Client ID: RB14_0-2

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.8		%	0.100	NA	1	-	01/08/19 12:10	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	01/08/19 10:15	01/09/19 11:40	1,9010C/9012B	LH
Chromium, Hexavalent	0.221	J	mg/kg	0.932	0.186	1	01/08/19 18:15	01/09/19 09:14	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-06

Date Collected: 01/07/19 12:25

Client ID: RB14_18-20

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.8		%	0.100	NA	1	-	01/08/19 12:10	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.24	1	01/08/19 10:15	01/09/19 11:41	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.932	0.186	1	01/08/19 18:15	01/09/19 09:14	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-07

Date Collected: 01/07/19 12:30

Client ID: RB14_23-25

Date Received: 01/07/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.3		%	0.100	NA	1	-	01/08/19 12:10	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.26	1	01/08/19 10:15	01/09/19 11:44	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.972	0.194	1	01/08/19 18:15	01/09/19 09:14	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-08
Client ID: RB14_33-35
Sample Location: BRONX, NY

Date Collected: 01/07/19 12:35
Date Received: 01/07/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.2		%	0.100	NA	1	-	01/08/19 12:10	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.23	1	01/08/19 10:15	01/09/19 11:45	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.887	0.177	1	01/08/19 18:15	01/09/19 09:14	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

SAMPLE RESULTS

Lab ID: L1900707-09
Client ID: SODUP04_010719
Sample Location: BRONX, NY

Date Collected: 01/07/19 00:00
Date Received: 01/07/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.3		%	0.100	NA	1	-	01/08/19 12:10	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.25	1	01/08/19 10:15	01/09/19 11:46	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.960	0.192	1	01/08/19 18:15	01/09/19 09:14	1,7196A	NH



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900707**Project Number:** 170487001**Report Date:** 01/14/19**SAMPLE RESULTS**

Lab ID: L1900707-11
 Client ID: SOFB03_010719
 Sample Location: BRONX, NY

Date Collected: 01/07/19 14:00
 Date Received: 01/07/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	01/09/19 14:35	01/10/19 13:55	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/08/19 03:45	01/08/19 04:28	1,7196A	MA



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 11 Batch: WG1195574-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/08/19 03:45	01/08/19 04:21	1,7196A	MA
General Chemistry - Westborough Lab for sample(s): 01-09 Batch: WG1195617-1										
Cyanide, Total	ND		mg/kg	0.91	0.19	1	01/08/19 10:15	01/09/19 11:10	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 01-02,04-09 Batch: WG1195861-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	01/08/19 18:15	01/09/19 09:14	1,7196A	NH
General Chemistry - Westborough Lab for sample(s): 11 Batch: WG1196095-1										
Cyanide, Total	ND		mg/l	0.005	0.001	1	01/09/19 02:35	01/10/19 13:19	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 03 Batch: WG1196593-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	01/10/19 15:30	01/11/19 08:49	1,7196A	NH

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 11 Batch: WG1195574-2								
Chromium, Hexavalent	92		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-09 Batch: WG1195617-2 WG1195617-3								
Cyanide, Total	60	Q	62	Q	80-120	0		35
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-09 Batch: WG1195861-2								
Chromium, Hexavalent	99		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 11 Batch: WG1196095-2 WG1196095-3								
Cyanide, Total	103		101		85-115	2		20
General Chemistry - Westborough Lab Associated sample(s): 03 Batch: WG1196593-2								
Chromium, Hexavalent	95		-		80-120	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG1195574-4 QC Sample: L1900707-11 Client ID: SOFB03_010719												
Chromium, Hexavalent	ND	0.1	0.097	97	-	-	-	-	85-115	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1195617-4 WG1195617-5 QC Sample: L1900707-03 Client ID: RB13_22-24												
Cyanide, Total	ND	12	11	92	11	93	93	75-125	0	0	0	35
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-09 QC Batch ID: WG1195861-4 QC Sample: L1900707-04 Client ID: RB13_33-35												
Chromium, Hexavalent	ND	1140	1230	108	-	-	-	-	75-125	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG1196095-4 WG1196095-5 QC Sample: L1900885-11 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.197	98	0.194	97	97	80-120	2	2	2	20
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1196593-4 WG1196593-5 QC Sample: L1900707-03 Client ID: RB13_22-24												
Chromium, Hexavalent	ND	1180	1130	95	1150	94	94	75-125	2	2	2	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900707

Report Date: 01/14/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG1195574-3 QC Sample: L1900707-11 Client ID: SOFB03_010719						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1195696-1 QC Sample: L1900707-03 Client ID: RB13_22-24						
Solids, Total	83.0	78.4	%	6		20
General Chemistry - Westborough Lab Associated sample(s): 01-02,04-09 QC Batch ID: WG1195861-6 QC Sample: L1900707-04 Client ID: RB13_33-35						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20
General Chemistry - Westborough Lab Associated sample(s): 03 QC Batch ID: WG1196593-7 QC Sample: L1900707-03 Client ID: RB13_22-24						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Serial_No:01141921:10
Lab Number: L1900707
Report Date: 01/14/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900707-01A	Vial MeOH preserved	A	NA		2.2	Y	Absent		NYTCL-8260HLW(14)
L1900707-01B	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-01C	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-01D	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		TS(7)
L1900707-01E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900707-01F	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-01G	Glass 500ml/16oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-02A	Vial MeOH preserved	A	NA		2.2	Y	Absent		NYTCL-8260HLW(14)
L1900707-02B	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-02C	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-02D	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		TS(7)
L1900707-02E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900707-02F	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-02G	Glass 500ml/16oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

*Values in parentheses indicate holding time in days



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900707

Project Number: 170487001

Report Date: 01/14/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900707-03A	Vial MeOH preserved	A	NA		2.2	Y	Absent		NYTCL-8260HLW(14)
L1900707-03A1	Vial MeOH preserved	A	NA		2.2	Y	Absent		NYTCL-8260HLW(14)
L1900707-03A2	Vial MeOH preserved	A	NA		2.2	Y	Absent		NYTCL-8260HLW(14)
L1900707-03B	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-03B1	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-03B2	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-03C	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-03C1	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-03C2	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-03D	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		TS(7)
L1900707-03D1	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		TS(7)
L1900707-03D2	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		TS(7)
L1900707-03E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900707-03E1	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900707-03E2	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900707-03F	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-03F1	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-03F2	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900707-03G	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-03G1	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-03G2	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-04A	Vial MeOH preserved	A	NA		2.2	Y	Absent		NYTCL-8260HLW(14)
L1900707-04B	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-04C	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-04D	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		TS(7)
L1900707-04E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900707-04F	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-04G	Glass 500ml/16oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-05A	Vial MeOH preserved	A	NA		2.2	Y	Absent		NYTCL-8260HLW(14)
L1900707-05B	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-05C	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-05D	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		TS(7)
L1900707-05E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900707-05F	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-05G	Glass 500ml/16oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

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Serial_No:01141921:10
Lab Number: L1900707
Report Date: 01/14/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900707-06A	Vial MeOH preserved	A	NA		2.2	Y	Absent		NYTCL-8260HLW(14)
L1900707-06B	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-06C	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-06D	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		TS(7)
L1900707-06E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900707-06F	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-06G	Glass 500ml/16oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-07A	Vial MeOH preserved	A	NA		2.2	Y	Absent		NYTCL-8260HLW(14)
L1900707-07B	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-07C	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-07D	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900707-07E	Glass 500ml/16oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),TS(7),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-08A	Vial MeOH preserved	A	NA		2.2	Y	Absent		NYTCL-8260HLW(14)
L1900707-08B	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-08C	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-08D	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		TS(7)
L1900707-08E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900707-08F	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

*Values in parentheses indicate holding time in days



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Report Date: 01/14/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900707-08G	Glass 500ml/16oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-09A	Vial MeOH preserved	A	NA		2.2	Y	Absent		NYTCL-8260HLW(14)
L1900707-09B	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-09C	Vial water preserved	A	NA		2.2	Y	Absent	08-JAN-19 02:53	NYTCL-8260HLW(14)
L1900707-09D	Plastic 2oz unpreserved for TS	A	NA		2.2	Y	Absent		TS(7)
L1900707-09E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900707-09F	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-09G	Glass 500ml/16oz unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900707-10A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1900707-10B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1900707-11A	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1900707-11B	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1900707-11C	Vial HCl preserved	A	NA		2.2	Y	Absent		NYTCL-8260(14)
L1900707-11D	Plastic 250ml HNO3 preserved	A	<2	<2	2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900707-11E	Plastic 250ml NaOH preserved	A	>12	>12	2.2	Y	Absent		TCN-9010(14)
L1900707-11F	Plastic 500ml unpreserved	A	NA		2.2	Y	Absent		HEXCR-7196(1)
L1900707-11G	Amber 120ml unpreserved	A	7	7	2.2	Y	Absent		NYTCL-8081(7)
L1900707-11H	Amber 120ml unpreserved	A	NA		2.2	Y	Absent		NYTCL-8081(7)
L1900707-11I	Amber 120ml unpreserved	A	NA		2.2	Y	Absent		NYTCL-8082-LVI(7)
L1900707-11J	Amber 120ml unpreserved	A	NA		2.2	Y	Absent		NYTCL-8082-LVI(7)
L1900707-11K	Amber 250ml unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900707-11L	Amber 250ml unpreserved	A	NA		2.2	Y	Absent		NYTCL-8270-SIM-LVI(7),NYTCL-8270-LVI(7)
L1900707-11M	Amber 1000ml unpreserved	A	NA		2.2	Y	Absent		HERB-APA(7)
L1900707-11N	Amber 1000ml unpreserved	B	7	7	3.8	Y	Absent		HERB-APA(7)

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GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE. + E. 146TH ST.
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Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900707
Report Date: 01/14/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page	Date Rec'd in Lab	ALPHA Job #										
		1 of 2	1/7/19	L1900707										
Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3286	Project Information Project Name: Gerard Ave. + E. 146th St. Project Location: Bronx NY Project # 170487001 (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input checked="" type="checkbox"/> ASP-A No: <u>30</u> <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other											
Client Information Client: Langan Engineering Address: 21 Penn Plaza, 360 W. 31st St 8th Fl., NY, NY 10001-2727 Phone: (212) 479-5400 Fax: (212) 479-5444 Email: jleung@langan.com		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #										
Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:												
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments: Please also cc: datamanagement@langan.com and vzuluaga@langan.com Please specify Metals or TAL.		ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)										
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	Part 375/TCL VOCs	Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hexavalent Chromium	Total Cyanide	Total Bottle
00707-01	RB13-0-2	1/7/19	1045	Soil	JL	X	X	X	X	X	X	X	X	
-02	RB13-18-20		1100		JL									
-03	RB13-22-24		1050		JL									
-04	RB13-33-35		1055		JL									
-05	RB14-0-2		1220		JL									
-06	RB14-18-20		1225		JL									
-07	RB14-23-25		1230		JL									
-08	RB14-33-35		1235		JL									
-09	SODUP04-010719		-		JL									
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type		Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)				
		Relinquished By:		Date/Time		Received By:		Date/Time						
		[Signature]		1/7/19 - 1515		[Signature]		1/7 1515						
		[Signature]		1/7 1100		[Signature]		1/7/19 1400						
		[Signature]		1/7/19 2225		[Signature]		1/7/19 2225						

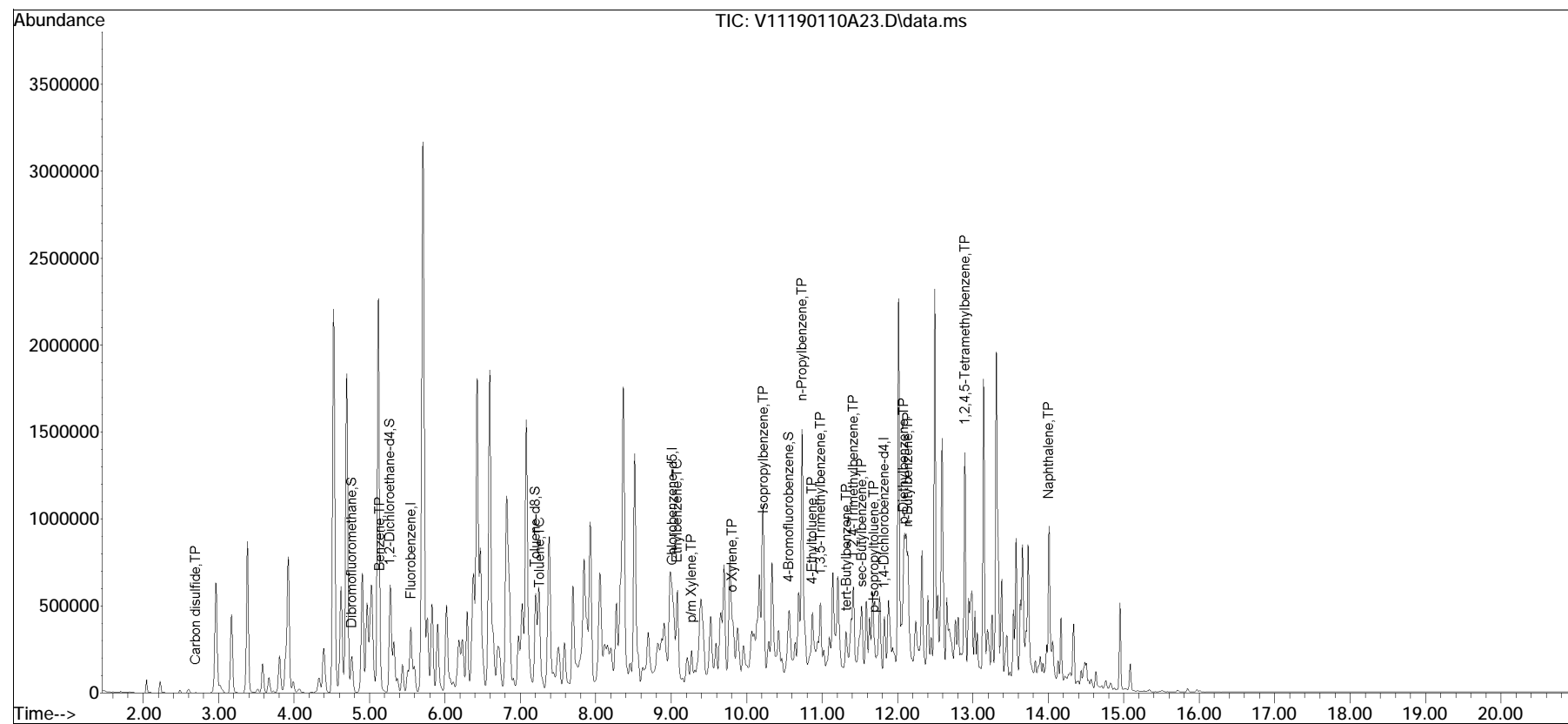
 <p>NEW YORK CHAIN OF CUSTODY</p> <p>Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193</p> <p>Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288</p>	<p><u>Service Centers</u></p> <p>Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105</p>	<p>Page</p> <p>2 of 2</p>	<p>Date Rec'd in Lab</p> <p>1/7/19</p>	<p>ALPHA Job #</p> <p>L1900707</p>																							
	<p>Project Information</p> <p>Project Name: Gerard Ave. + E. 146th St.</p> <p>Project Location: Bronx NY</p> <p>Project # 170487001</p> <p>(Use Project name as Project #) <input type="checkbox"/></p> <p>Project Manager: Julia Leung</p> <p>ALPHAQuote #:</p> <p>Turn-Around Time</p> <p>Standard <input checked="" type="checkbox"/> Due Date:</p> <p>Rush (only if pre approved) <input type="checkbox"/> # of Days:</p>	<p>Deliverables</p> <p><input checked="" type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B</p> <p><input type="checkbox"/> EQUIS (1 File) <input checked="" type="checkbox"/> EQUIS (4 File)</p> <p><input type="checkbox"/> Other</p>	<p>Billing Information</p> <p><input checked="" type="checkbox"/> Same as Client Info</p> <p>PO #</p>																								
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<p>These samples have been previously analyzed by Alpha <input type="checkbox"/></p> <p>Other project specific requirements/comments:</p> <p>Please also cc: datamanagement@langan.com and vzuluaga@langan.com</p> <p>Please specify Metals or TAL.</p>	<p>ANALYSIS</p> <table border="1"> <tr> <th>Part 375/TCL VOCs</th> <th>Part 375/TCL SVOCs</th> <th>Part 375/TCL PCBs</th> <th>Pesticides</th> <th>Herbicides</th> <th>TAL Metals</th> <th>Hexavalent Chromium</th> <th>Total Cyanide</th> </tr> <tr> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> </tr> </table>	Part 375/TCL VOCs	Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hexavalent Chromium	Total Cyanide	X								X	X	X	X	X	X	X	X	<p>Sample Filtration</p> <p><input type="checkbox"/> Done</p> <p><input type="checkbox"/> Lab to do</p> <p>Preservation</p> <p><input type="checkbox"/> Lab to do</p> <p>(Please Specify below)</p> <p>Sample Specific Comments</p>	
Part 375/TCL VOCs	Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hexavalent Chromium	Total Cyanide																				
X																											
X	X	X	X	X	X	X	X																				
<table border="1"> <thead> <tr> <th>ALPHA Lab ID (Lab Use Only)</th> <th>Sample ID</th> <th colspan="2">Collection</th> <th>Sample Matrix</th> <th>Sampler's Initials</th> </tr> <tr> <th></th> <th></th> <th>Date</th> <th>Time</th> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>00707 -10</td> <td>SOTB06-010719</td> <td>1/7/19</td> <td>-</td> <td>AQ</td> <td>JL</td> </tr> <tr> <td>-11</td> <td>SGFB03-010719</td> <td>↓</td> <td>1400</td> <td>AQ</td> <td>JD</td> </tr> </tbody> </table>	ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials			Date	Time			00707 -10	SOTB06-010719	1/7/19	-	AQ	JL	-11	SGFB03-010719	↓	1400	AQ	JD	<p>Westboro: Certification No: MA935</p> <p>Mansfield: Certification No: MA015</p>	<p>Container Type</p> <p>Preservative</p>	<p>Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)</p>
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	1/7/19 2225	Windy Murray	1/7/19 2225																								

Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA111\2019\190110A\
 Data File : V11190110A23.D
 Acq On : 10 Jan 2019 04:21 pm
 Operator : VOA111:AD
 Sample : 11900707-03D,31H,6.00,5,0.020,,a
 Misc : WG1196507,ICAL15386
 ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 10 17:04:10 2019
 Quant Method : I:\VOLATILES\VOA111\2019\190110A\V111_190108N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Wed Jan 09 10:10:31 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90110A\V11190110A01.D•

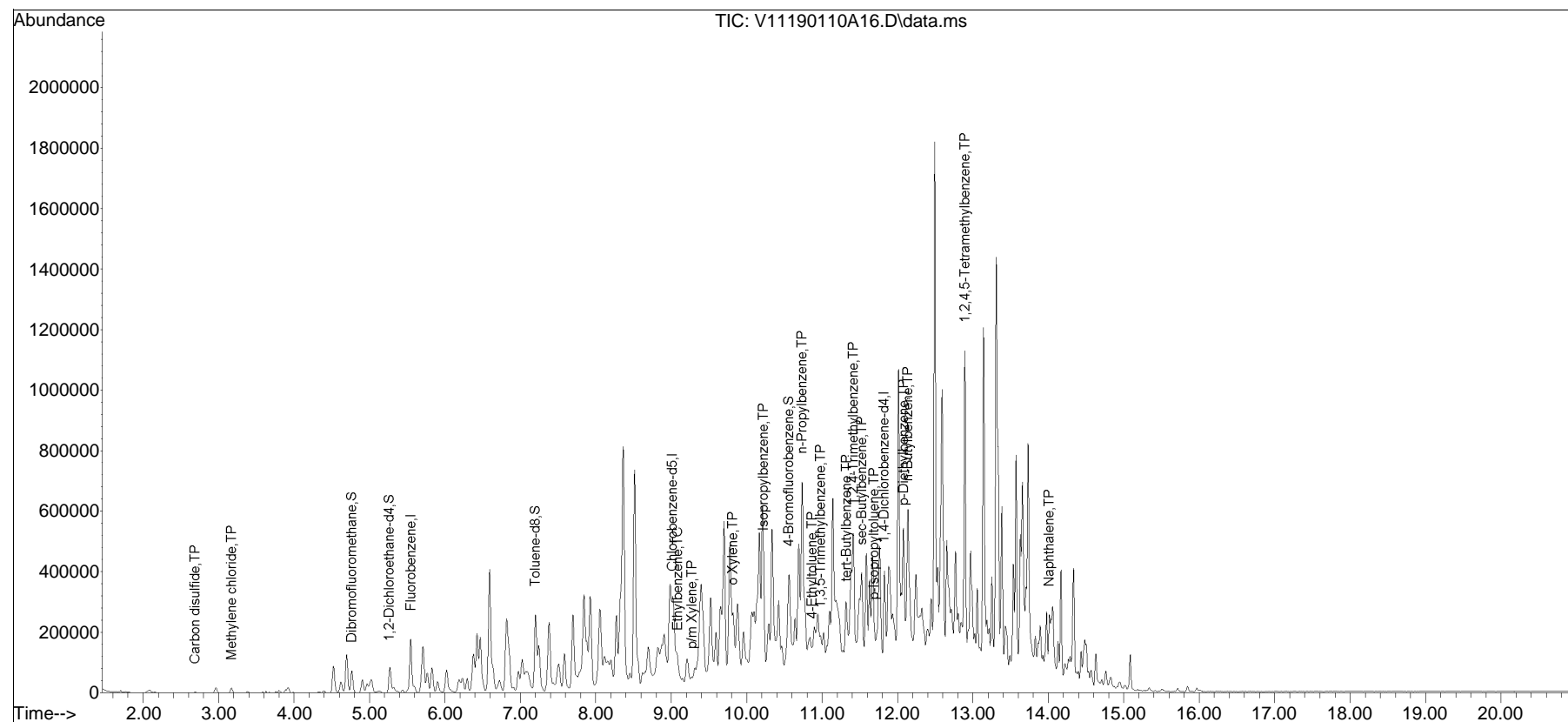


Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA111\2019\190110A\
 Data File : V11190110A16.D
 Acq On : 10 Jan 2019 01:18 pm
 Operator : VOA111:AD
 Sample : 11900707-06D,31H,5.66,5,0.040,,a
 Misc : WG1196507,ICAL15386
 ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 10 14:43:29 2019
 Quant Method : I:\VOLATILES\VOA111\2019\190110A\V111_190108N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Wed Jan 09 10:10:31 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90110A\V11190110A01.D•

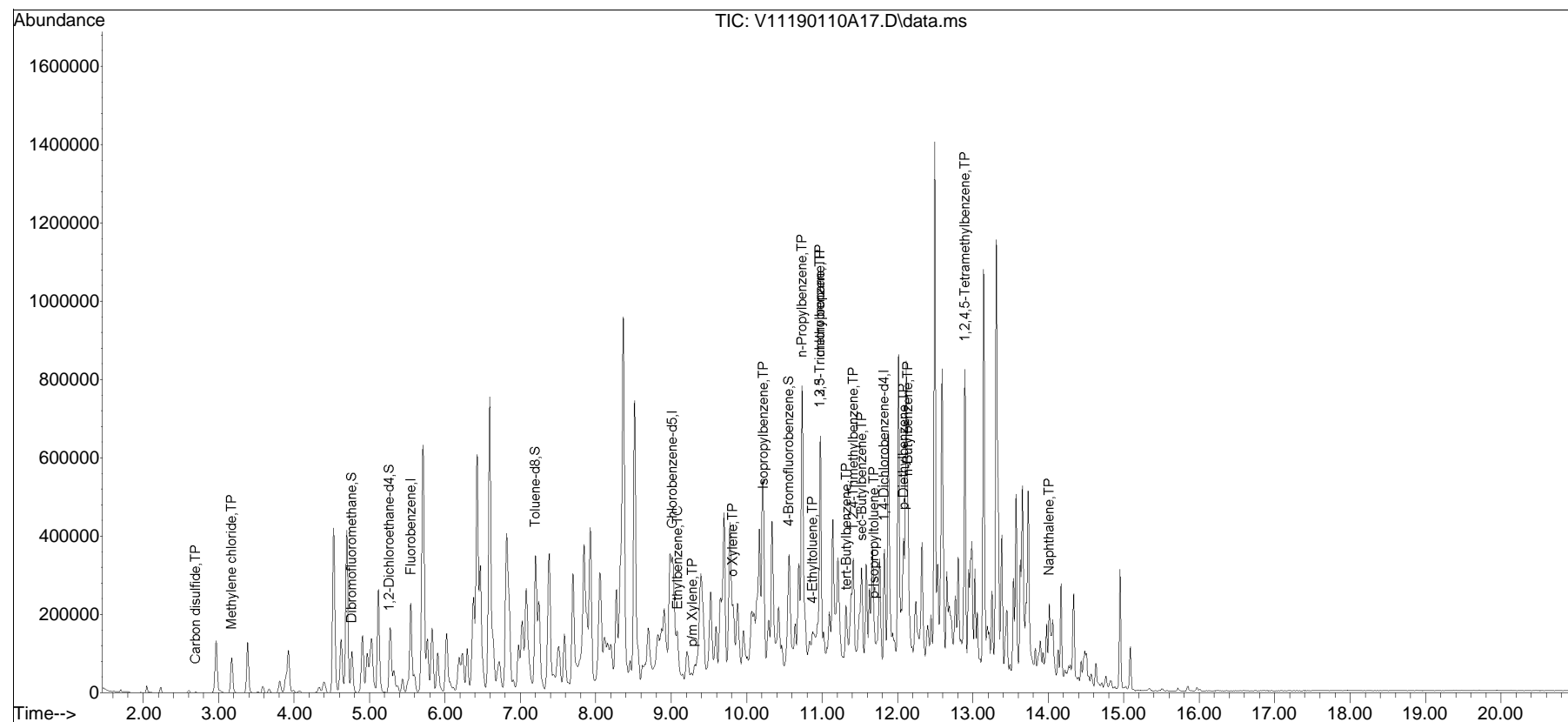


Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA111\2019\190110A\
 Data File : V11190110A17.D
 Acq On : 10 Jan 2019 01:44 pm
 Operator : VOA111:AD
 Sample : 11900707-07D,31H,5.92,5,0.010,,a
 Misc : WG1196507,ICAL15386
 ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 10 14:45:32 2019
 Quant Method : I:\VOLATILES\VOA111\2019\190110A\V111_190108N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Wed Jan 09 10:10:31 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90110A\V11190110A01.D•

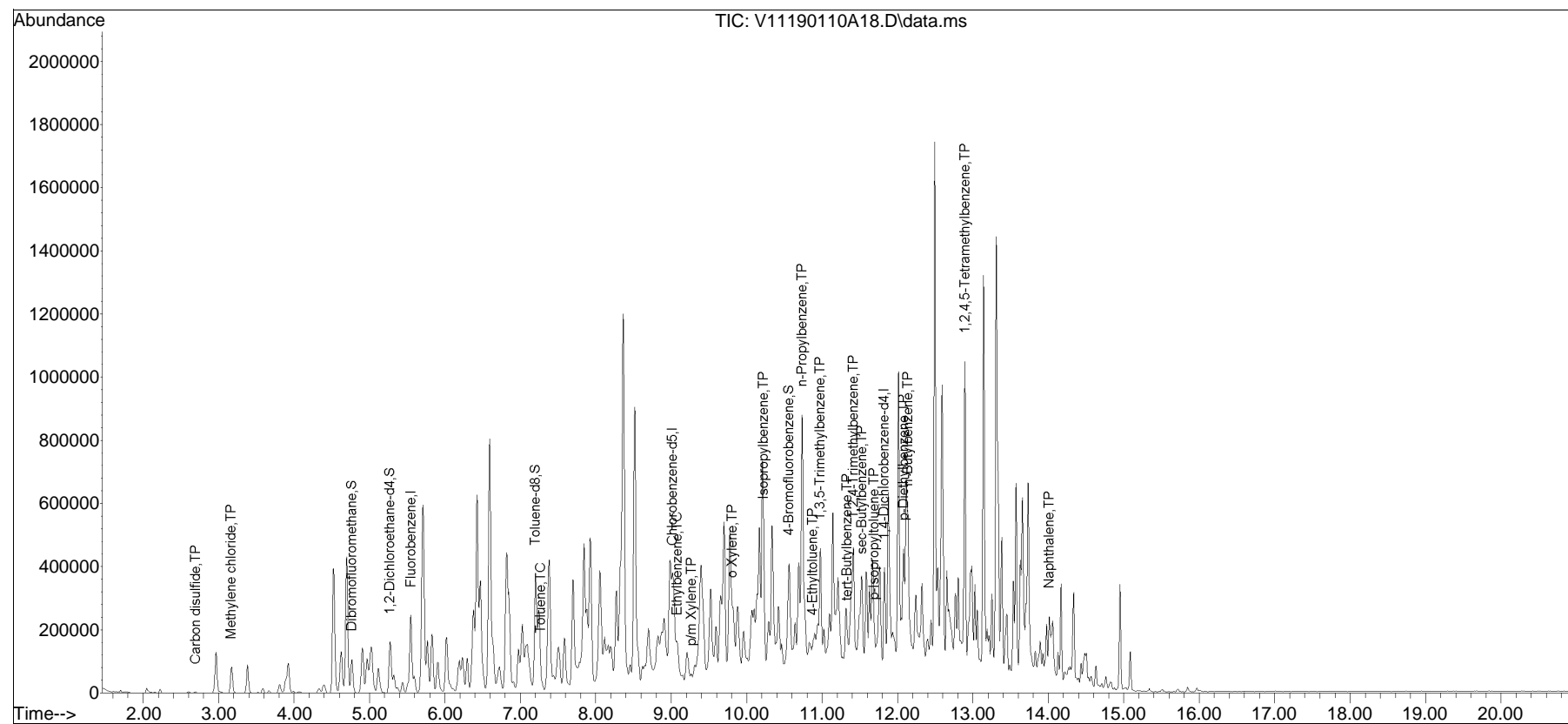


Quantitation Report (QT Reviewed)

Data Path : I:\VOLATILES\VOA111\2019\190110A\
 Data File : V11190110A18.D
 Acq On : 10 Jan 2019 02:10 pm
 Operator : VOA111:AD
 Sample : 11900707-09D,31H,6.11,5,0.025,,a
 Misc : WG1196507,ICAL15386
 ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 10 14:48:18 2019
 Quant Method : I:\VOLATILES\VOA111\2019\190110A\V111_190108N_8260.m
 Quant Title : VOLATILES BY GC/MS
 QLast Update : Wed Jan 09 10:10:31 2019
 Response via : Initial Calibration

Sub List : 8260-NYTCL - Megamix plus Diox90110A\V11190110A01.D•





ANALYTICAL REPORT

Lab Number:	L1900879
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	GERARD AVE. + E. 146TH ST.
Project Number:	170487001
Report Date:	01/18/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1900879-01	RB10_0-2	SOIL	BRONX, NY	01/08/19 11:30	01/08/19
L1900879-02	RB10_18-20	SOIL	BRONX, NY	01/08/19 11:35	01/08/19
L1900879-03	RB10_33-35	SOIL	BRONX, NY	01/08/19 11:40	01/08/19
L1900879-04	RB15_0-2	SOIL	BRONX, NY	01/08/19 13:00	01/08/19
L1900879-05	RB15_18-20	SOIL	BRONX, NY	01/08/19 13:05	01/08/19
L1900879-06	RB15_23-25	SOIL	BRONX, NY	01/08/19 13:15	01/08/19
L1900879-07	RB15_28-30	SOIL	BRONX, NY	01/08/19 13:10	01/08/19
L1900879-08	RB16_0-2	SOIL	BRONX, NY	01/08/19 10:40	01/08/19
L1900879-09	RB16_13-15	SOIL	BRONX, NY	01/08/19 10:45	01/08/19
L1900879-10	RB16_18-20	SOIL	BRONX, NY	01/08/19 10:50	01/08/19
L1900879-11	SODUP05_010819	SOIL	BRONX, NY	01/08/19 00:00	01/08/19
L1900879-12	SOFB04_010819	WATER	BRONX, NY	01/08/19 10:00	01/08/19
L1900879-13	SOTB07_010819	WATER	BRONX, NY	01/08/19 00:00	01/08/19

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. All specific QC information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY

For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Client Services at 800-624-9220 with any questions.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

The analyses performed were specified by the client.

Semivolatile Organics

L1900879-01, -04, and -09: The sample has elevated detection limits due to the dilution required by the sample matrix.

The WG1196039-4/-5 MS/MSD recoveries, performed on L1900879-03, are below the acceptance criteria for benzoic acid (0%/0%) due to the concentration of this compound falling below the reported detection limit.

Pesticides

L1900879-06: The surrogate recovery is outside the acceptance criteria for 2,4,5,6-tetrachloro-m-xylene (181%); however, the sample was not re-extracted due to coelution with obvious interferences.

Total Metals

L1900879-01 through -11: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

The WG1196160-3/-4 MS/MSD recoveries for aluminum (214%/190%) and iron (53%/349%), performed on L1900879-03, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1196160-7/-8 MS/MSD recoveries for aluminum (197%/296%), iron (MS at 0%) and manganese (0%/0%), performed on L1900879-07, do not apply because the sample concentrations are greater than four times the spike amounts added.

The WG1196160-7/-8 MS/MSD recoveries, performed on L1900879-07, are outside the acceptance criteria for thallium (73%/73%). A post digestion spike was performed and yielded unacceptable recoveries for thallium

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

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Report Date: 01/18/19

Case Narrative (continued)

(76%). The serial dilution recovery was not applicable; therefore, this element fails the matrix test and the result reported in the native sample should be considered estimated.

Cyanide, Total

The WG1196013-2/-3 LCS/LCSD recoveries (50%/75%), associated with L1900879-01 through -06 and -08 through -11, are outside our in-house acceptance criteria, but within the vendor-certified acceptance limits.

The results of the original analyses are reported. In addition, the WG1196013-2/-3 LCS/LCSD RPD (39%) is above the acceptance criteria.

The WG1196064-2/-3 LCS/LCSD RPD (39%), associated with L1900879-07, is above the acceptance criteria.

The WG1196064-5 MSD recovery (39%), performed on L1900879-07, is outside the acceptance criteria; however, the associated LCS recovery is within criteria. No further action was taken. In addition, the WG1196064-4/-5 MS/MSD RPD (89%) is above the acceptance criteria.

Hexavalent Chromium

The WG1196213-2 LCS recovery (79%), associated with L1900879-01 through -06 and -08 through -11, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

The WG1196215-2 LCS recovery (79%), associated with L1900879-07, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Cristin Walker

Title: Technical Director/Representative

Date: 01/18/19

ORGANICS

VOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-01
 Client ID: RB10_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:30
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/10/19 23:10
 Analyst: JC
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.5	2.1	1
1,1-Dichloroethane	ND		ug/kg	0.90	0.13	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.90	0.21	1
1,2-Dichloropropane	ND		ug/kg	0.90	0.11	1
Dibromochloromethane	ND		ug/kg	0.90	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.90	0.24	1
Tetrachloroethene	ND		ug/kg	0.45	0.18	1
Chlorobenzene	ND		ug/kg	0.45	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.6	0.63	1
1,2-Dichloroethane	ND		ug/kg	0.90	0.23	1
1,1,1-Trichloroethane	ND		ug/kg	0.45	0.15	1
Bromodichloromethane	ND		ug/kg	0.45	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.90	0.25	1
cis-1,3-Dichloropropene	ND		ug/kg	0.45	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.45	0.14	1
1,1-Dichloropropene	ND		ug/kg	0.45	0.14	1
Bromoform	ND		ug/kg	3.6	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.45	0.15	1
Benzene	ND		ug/kg	0.45	0.15	1
Toluene	ND		ug/kg	0.90	0.49	1
Ethylbenzene	ND		ug/kg	0.90	0.13	1
Chloromethane	ND		ug/kg	3.6	0.84	1
Bromomethane	ND		ug/kg	1.8	0.53	1
Vinyl chloride	ND		ug/kg	0.90	0.30	1
Chloroethane	ND		ug/kg	1.8	0.41	1
1,1-Dichloroethene	ND		ug/kg	0.90	0.22	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.12	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-01

Date Collected: 01/08/19 11:30

Client ID: RB10_0-2

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.45	0.12	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	0.15	1
Methyl tert butyl ether	ND		ug/kg	1.8	0.18	1
p/m-Xylene	ND		ug/kg	1.8	0.51	1
o-Xylene	ND		ug/kg	0.90	0.26	1
Xylenes, Total	ND		ug/kg	0.90	0.26	1
cis-1,2-Dichloroethene	ND		ug/kg	0.90	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	0.90	0.12	1
Dibromomethane	ND		ug/kg	1.8	0.22	1
Styrene	ND		ug/kg	0.90	0.18	1
Dichlorodifluoromethane	ND		ug/kg	9.0	0.83	1
Acetone	ND		ug/kg	9.0	4.4	1
Carbon disulfide	ND		ug/kg	9.0	4.1	1
2-Butanone	ND		ug/kg	9.0	2.0	1
Vinyl acetate	ND		ug/kg	9.0	1.9	1
4-Methyl-2-pentanone	ND		ug/kg	9.0	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	1.8	0.12	1
2-Hexanone	ND		ug/kg	9.0	1.1	1
Bromochloromethane	ND		ug/kg	1.8	0.18	1
2,2-Dichloropropane	ND		ug/kg	1.8	0.18	1
1,2-Dibromoethane	ND		ug/kg	0.90	0.25	1
1,3-Dichloropropane	ND		ug/kg	1.8	0.15	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.45	0.12	1
Bromobenzene	ND		ug/kg	1.8	0.13	1
n-Butylbenzene	ND		ug/kg	0.90	0.15	1
sec-Butylbenzene	ND		ug/kg	0.90	0.13	1
tert-Butylbenzene	ND		ug/kg	1.8	0.11	1
o-Chlorotoluene	ND		ug/kg	1.8	0.17	1
p-Chlorotoluene	ND		ug/kg	1.8	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.7	0.90	1
Hexachlorobutadiene	ND		ug/kg	3.6	0.15	1
Isopropylbenzene	ND		ug/kg	0.90	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.90	0.10	1
Naphthalene	ND		ug/kg	3.6	0.59	1
Acrylonitrile	ND		ug/kg	3.6	1.0	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-01
 Client ID: RB10_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:30
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.90	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	0.29	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	0.25	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	0.30	1
1,4-Dioxane	ND		ug/kg	90	32.	1
p-Diethylbenzene	ND		ug/kg	1.8	0.16	1
p-Ethyltoluene	ND		ug/kg	1.8	0.35	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.8	0.17	1
Ethyl ether	ND		ug/kg	1.8	0.31	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.5	1.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	94		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-02
 Client ID: RB10_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:35
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/11/19 00:52
 Analyst: MV
 Percent Solids: 72%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	490	220	1
1,1-Dichloroethane	ND		ug/kg	98	14.	1
Chloroform	ND		ug/kg	150	14.	1
Carbon tetrachloride	ND		ug/kg	98	22.	1
1,2-Dichloropropane	ND		ug/kg	98	12.	1
Dibromochloromethane	ND		ug/kg	98	14.	1
1,1,2-Trichloroethane	ND		ug/kg	98	26.	1
Tetrachloroethene	ND		ug/kg	49	19.	1
Chlorobenzene	ND		ug/kg	49	12.	1
Trichlorofluoromethane	ND		ug/kg	390	68.	1
1,2-Dichloroethane	ND		ug/kg	98	25.	1
1,1,1-Trichloroethane	ND		ug/kg	49	16.	1
Bromodichloromethane	ND		ug/kg	49	11.	1
trans-1,3-Dichloropropene	ND		ug/kg	98	27.	1
cis-1,3-Dichloropropene	ND		ug/kg	49	15.	1
1,3-Dichloropropene, Total	ND		ug/kg	49	15.	1
1,1-Dichloropropene	ND		ug/kg	49	16.	1
Bromoform	ND		ug/kg	390	24.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	49	16.	1
Benzene	9500		ug/kg	49	16.	1
Toluene	8500		ug/kg	98	53.	1
Ethylbenzene	2600		ug/kg	98	14.	1
Chloromethane	ND		ug/kg	390	91.	1
Bromomethane	ND		ug/kg	200	57.	1
Vinyl chloride	ND		ug/kg	98	33.	1
Chloroethane	ND		ug/kg	200	44.	1
1,1-Dichloroethene	ND		ug/kg	98	23.	1
trans-1,2-Dichloroethene	ND		ug/kg	150	13.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-02

Date Collected: 01/08/19 11:35

Client ID: RB10_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	49	13.	1
1,2-Dichlorobenzene	ND		ug/kg	200	14.	1
1,3-Dichlorobenzene	ND		ug/kg	200	14.	1
1,4-Dichlorobenzene	ND		ug/kg	200	17.	1
Methyl tert butyl ether	ND		ug/kg	200	20.	1
p/m-Xylene	6800		ug/kg	200	55.	1
o-Xylene	840		ug/kg	98	28.	1
Xylenes, Total	7600		ug/kg	98	28.	1
cis-1,2-Dichloroethene	ND		ug/kg	98	17.	1
1,2-Dichloroethene, Total	ND		ug/kg	98	13.	1
Dibromomethane	ND		ug/kg	200	23.	1
Styrene	ND		ug/kg	98	19.	1
Dichlorodifluoromethane	ND		ug/kg	980	90.	1
Acetone	9300		ug/kg	980	470	1
Carbon disulfide	ND		ug/kg	980	450	1
2-Butanone	ND		ug/kg	980	220	1
Vinyl acetate	ND		ug/kg	980	210	1
4-Methyl-2-pentanone	ND		ug/kg	980	120	1
1,2,3-Trichloropropane	ND		ug/kg	200	12.	1
2-Hexanone	ND		ug/kg	980	120	1
Bromochloromethane	ND		ug/kg	200	20.	1
2,2-Dichloropropane	ND		ug/kg	200	20.	1
1,2-Dibromoethane	ND		ug/kg	98	27.	1
1,3-Dichloropropane	ND		ug/kg	200	16.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	49	13.	1
Bromobenzene	ND		ug/kg	200	14.	1
n-Butylbenzene	1600		ug/kg	98	16.	1
sec-Butylbenzene	1400		ug/kg	98	14.	1
tert-Butylbenzene	130	J	ug/kg	200	12.	1
o-Chlorotoluene	ND		ug/kg	200	19.	1
p-Chlorotoluene	ND		ug/kg	200	10.	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	290	98.	1
Hexachlorobutadiene	ND		ug/kg	390	16.	1
Isopropylbenzene	2800		ug/kg	98	11.	1
p-Isopropyltoluene	56	J	ug/kg	98	11.	1
Naphthalene	590		ug/kg	390	64.	1
Acrylonitrile	ND		ug/kg	390	110	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-02
 Client ID: RB10_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:35
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	6700		ug/kg	98	17.	1
1,2,3-Trichlorobenzene	ND		ug/kg	200	32.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	27.	1
1,3,5-Trimethylbenzene	180	J	ug/kg	200	19.	1
1,2,4-Trimethylbenzene	900		ug/kg	200	33.	1
1,4-Dioxane	ND		ug/kg	9800	3400	1
p-Diethylbenzene	2200		ug/kg	200	17.	1
p-Ethyltoluene	1200		ug/kg	200	38.	1
1,2,4,5-Tetramethylbenzene	5700		ug/kg	200	19.	1
Ethyl ether	ND		ug/kg	200	33.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	490	140	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	128		70-130
Dibromofluoromethane	94		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-03
 Client ID: RB10_33-35
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:40
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/10/19 23:35
 Analyst: JC
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.2	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.6	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.28	1
Tetrachloroethene	ND		ug/kg	0.52	0.20	1
Chlorobenzene	ND		ug/kg	0.52	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.2	0.72	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.27	1
1,1,1-Trichloroethane	ND		ug/kg	0.52	0.17	1
Bromodichloromethane	ND		ug/kg	0.52	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
cis-1,3-Dichloropropene	ND		ug/kg	0.52	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.52	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.52	0.16	1
Bromoform	ND		ug/kg	4.2	0.26	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.52	0.17	1
Benzene	ND		ug/kg	0.52	0.17	1
Toluene	ND		ug/kg	1.0	0.56	1
Ethylbenzene	ND		ug/kg	1.0	0.15	1
Chloromethane	ND		ug/kg	4.2	0.97	1
Bromomethane	ND		ug/kg	2.1	0.60	1
Vinyl chloride	ND		ug/kg	1.0	0.35	1
Chloroethane	ND		ug/kg	2.1	0.47	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.6	0.14	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-03

Date Collected: 01/08/19 11:40

Client ID: RB10_33-35

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.52	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.58	1
o-Xylene	ND		ug/kg	1.0	0.30	1
Xylenes, Total	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.1	0.25	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.95	1
Acetone	ND		ug/kg	10	5.0	1
Carbon disulfide	ND		ug/kg	10	4.7	1
2-Butanone	ND		ug/kg	10	2.3	1
Vinyl acetate	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.21	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.29	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.52	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.15	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.1	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.2	0.18	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.2	0.67	1
Acrylonitrile	ND		ug/kg	4.2	1.2	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-03
 Client ID: RB10_33-35
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:40
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.0	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.33	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.28	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.35	1
1,4-Dioxane	ND		ug/kg	100	36.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.18	1
p-Ethyltoluene	ND		ug/kg	2.1	0.40	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.35	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.2	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	93		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-04
 Client ID: RB15_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/11/19 01:18
 Analyst: MV
 Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	370	170	1
1,1-Dichloroethane	ND		ug/kg	74	11.	1
Chloroform	ND		ug/kg	110	10.	1
Carbon tetrachloride	ND		ug/kg	74	17.	1
1,2-Dichloropropane	ND		ug/kg	74	9.2	1
Dibromochloromethane	ND		ug/kg	74	10.	1
1,1,2-Trichloroethane	ND		ug/kg	74	20.	1
Tetrachloroethene	1100		ug/kg	37	14.	1
Chlorobenzene	ND		ug/kg	37	9.4	1
Trichlorofluoromethane	ND		ug/kg	290	51.	1
1,2-Dichloroethane	ND		ug/kg	74	19.	1
1,1,1-Trichloroethane	ND		ug/kg	37	12.	1
Bromodichloromethane	ND		ug/kg	37	8.0	1
trans-1,3-Dichloropropene	ND		ug/kg	74	20.	1
cis-1,3-Dichloropropene	ND		ug/kg	37	12.	1
1,3-Dichloropropene, Total	ND		ug/kg	37	12.	1
1,1-Dichloropropene	ND		ug/kg	37	12.	1
Bromoform	ND		ug/kg	290	18.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	37	12.	1
Benzene	130		ug/kg	37	12.	1
Toluene	1900		ug/kg	74	40.	1
Ethylbenzene	ND		ug/kg	74	10.	1
Chloromethane	ND		ug/kg	290	69.	1
Bromomethane	ND		ug/kg	150	43.	1
Vinyl chloride	ND		ug/kg	74	25.	1
Chloroethane	ND		ug/kg	150	33.	1
1,1-Dichloroethene	ND		ug/kg	74	18.	1
trans-1,2-Dichloroethene	ND		ug/kg	110	10.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-04

Date Collected: 01/08/19 13:00

Client ID: RB15_0-2

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	37	10.	1
1,2-Dichlorobenzene	ND		ug/kg	150	11.	1
1,3-Dichlorobenzene	ND		ug/kg	150	11.	1
1,4-Dichlorobenzene	ND		ug/kg	150	12.	1
Methyl tert butyl ether	ND		ug/kg	150	15.	1
p/m-Xylene	ND		ug/kg	150	41.	1
o-Xylene	ND		ug/kg	74	21.	1
Xylenes, Total	ND		ug/kg	74	21.	1
cis-1,2-Dichloroethene	ND		ug/kg	74	13.	1
1,2-Dichloroethene, Total	ND		ug/kg	74	10.	1
Dibromomethane	ND		ug/kg	150	18.	1
Styrene	ND		ug/kg	74	14.	1
Dichlorodifluoromethane	ND		ug/kg	740	67.	1
Acetone	ND		ug/kg	740	350	1
Carbon disulfide	ND		ug/kg	740	340	1
2-Butanone	ND		ug/kg	740	160	1
Vinyl acetate	ND		ug/kg	740	160	1
4-Methyl-2-pentanone	ND		ug/kg	740	94.	1
1,2,3-Trichloropropane	ND		ug/kg	150	9.4	1
2-Hexanone	ND		ug/kg	740	87.	1
Bromochloromethane	ND		ug/kg	150	15.	1
2,2-Dichloropropane	ND		ug/kg	150	15.	1
1,2-Dibromoethane	ND		ug/kg	74	20.	1
1,3-Dichloropropane	ND		ug/kg	150	12.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	37	9.7	1
Bromobenzene	ND		ug/kg	150	11.	1
n-Butylbenzene	ND		ug/kg	74	12.	1
sec-Butylbenzene	ND		ug/kg	74	11.	1
tert-Butylbenzene	ND		ug/kg	150	8.7	1
o-Chlorotoluene	ND		ug/kg	150	14.	1
p-Chlorotoluene	ND		ug/kg	150	8.0	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	220	73.	1
Hexachlorobutadiene	ND		ug/kg	290	12.	1
Isopropylbenzene	ND		ug/kg	74	8.0	1
p-Isopropyltoluene	ND		ug/kg	74	8.0	1
Naphthalene	ND		ug/kg	290	48.	1
Acrylonitrile	ND		ug/kg	290	85.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-04
 Client ID: RB15_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	ND		ug/kg	74	12.	1
1,2,3-Trichlorobenzene	ND		ug/kg	150	24.	1
1,2,4-Trichlorobenzene	ND		ug/kg	150	20.	1
1,3,5-Trimethylbenzene	ND		ug/kg	150	14.	1
1,2,4-Trimethylbenzene	ND		ug/kg	150	24.	1
1,4-Dioxane	ND		ug/kg	7400	2600	1
p-Diethylbenzene	ND		ug/kg	150	13.	1
p-Ethyltoluene	ND		ug/kg	150	28.	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	150	14.	1
Ethyl ether	ND		ug/kg	150	25.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	370	100	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	99		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-05
 Client ID: RB15_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:05
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/11/19 10:54
 Analyst: MV
 Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.1	1.9	1
1,1-Dichloroethane	ND		ug/kg	0.81	0.12	1
Chloroform	ND		ug/kg	1.2	0.11	1
Carbon tetrachloride	ND		ug/kg	0.81	0.19	1
1,2-Dichloropropane	ND		ug/kg	0.81	0.10	1
Dibromochloromethane	ND		ug/kg	0.81	0.11	1
1,1,2-Trichloroethane	ND		ug/kg	0.81	0.22	1
Tetrachloroethene	ND		ug/kg	0.41	0.16	1
Chlorobenzene	ND		ug/kg	0.41	0.10	1
Trichlorofluoromethane	ND		ug/kg	3.2	0.56	1
1,2-Dichloroethane	ND		ug/kg	0.81	0.21	1
1,1,1-Trichloroethane	ND		ug/kg	0.41	0.14	1
Bromodichloromethane	ND		ug/kg	0.41	0.09	1
trans-1,3-Dichloropropene	ND		ug/kg	0.81	0.22	1
cis-1,3-Dichloropropene	ND		ug/kg	0.41	0.13	1
1,3-Dichloropropene, Total	ND		ug/kg	0.41	0.13	1
1,1-Dichloropropene	ND		ug/kg	0.41	0.13	1
Bromoform	ND		ug/kg	3.2	0.20	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.41	0.14	1
Benzene	0.26	J	ug/kg	0.41	0.14	1
Toluene	ND		ug/kg	0.81	0.44	1
Ethylbenzene	ND		ug/kg	0.81	0.11	1
Chloromethane	ND		ug/kg	3.2	0.76	1
Bromomethane	ND		ug/kg	1.6	0.47	1
Vinyl chloride	ND		ug/kg	0.81	0.27	1
Chloroethane	ND		ug/kg	1.6	0.37	1
1,1-Dichloroethene	ND		ug/kg	0.81	0.19	1
trans-1,2-Dichloroethene	ND		ug/kg	1.2	0.11	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-05

Date Collected: 01/08/19 13:05

Client ID: RB15_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.41	0.11	1
1,2-Dichlorobenzene	ND		ug/kg	1.6	0.12	1
1,3-Dichlorobenzene	ND		ug/kg	1.6	0.12	1
1,4-Dichlorobenzene	ND		ug/kg	1.6	0.14	1
Methyl tert butyl ether	ND		ug/kg	1.6	0.16	1
p/m-Xylene	1.6		ug/kg	1.6	0.46	1
o-Xylene	1.0		ug/kg	0.81	0.24	1
Xylenes, Total	2.6		ug/kg	0.81	0.24	1
cis-1,2-Dichloroethene	ND		ug/kg	0.81	0.14	1
1,2-Dichloroethene, Total	ND		ug/kg	0.81	0.11	1
Dibromomethane	ND		ug/kg	1.6	0.19	1
Styrene	ND		ug/kg	0.81	0.16	1
Dichlorodifluoromethane	ND		ug/kg	8.1	0.74	1
Acetone	51		ug/kg	8.1	3.9	1
Carbon disulfide	ND		ug/kg	8.1	3.7	1
2-Butanone	ND		ug/kg	8.1	1.8	1
Vinyl acetate	ND		ug/kg	8.1	1.8	1
4-Methyl-2-pentanone	ND		ug/kg	8.1	1.0	1
1,2,3-Trichloropropane	ND		ug/kg	1.6	0.10	1
2-Hexanone	ND		ug/kg	8.1	0.96	1
Bromochloromethane	ND		ug/kg	1.6	0.17	1
2,2-Dichloropropane	ND		ug/kg	1.6	0.16	1
1,2-Dibromoethane	ND		ug/kg	0.81	0.23	1
1,3-Dichloropropane	ND		ug/kg	1.6	0.14	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.41	0.11	1
Bromobenzene	ND		ug/kg	1.6	0.12	1
n-Butylbenzene	0.24	J	ug/kg	0.81	0.14	1
sec-Butylbenzene	2.5		ug/kg	0.81	0.12	1
tert-Butylbenzene	0.45	J	ug/kg	1.6	0.10	1
o-Chlorotoluene	ND		ug/kg	1.6	0.16	1
p-Chlorotoluene	ND		ug/kg	1.6	0.09	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.4	0.81	1
Hexachlorobutadiene	ND		ug/kg	3.2	0.14	1
Isopropylbenzene	5.6		ug/kg	0.81	0.09	1
p-Isopropyltoluene	0.15	J	ug/kg	0.81	0.09	1
Naphthalene	0.86	J	ug/kg	3.2	0.53	1
Acrylonitrile	ND		ug/kg	3.2	0.94	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-05
 Client ID: RB15_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:05
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	5.3		ug/kg	0.81	0.14	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.6	0.26	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.6	0.22	1
1,3,5-Trimethylbenzene	0.59	J	ug/kg	1.6	0.16	1
1,2,4-Trimethylbenzene	0.86	J	ug/kg	1.6	0.27	1
1,4-Dioxane	ND		ug/kg	81	28.	1
p-Diethylbenzene	1.5	J	ug/kg	1.6	0.14	1
p-Ethyltoluene	0.95	J	ug/kg	1.6	0.31	1
1,2,4,5-Tetramethylbenzene	4.3		ug/kg	1.6	0.16	1
Ethyl ether	ND		ug/kg	1.6	0.28	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.1	1.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	122		70-130
Dibromofluoromethane	97		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-06
 Client ID: RB15_23-25
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:15
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/11/19 13:29
 Analyst: MKS
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	310	140	1
1,1-Dichloroethane	ND		ug/kg	62	9.0	1
Chloroform	ND		ug/kg	93	8.7	1
Carbon tetrachloride	ND		ug/kg	62	14.	1
1,2-Dichloropropane	ND		ug/kg	62	7.8	1
Dibromochloromethane	ND		ug/kg	62	8.7	1
1,1,2-Trichloroethane	ND		ug/kg	62	16.	1
Tetrachloroethene	ND		ug/kg	31	12.	1
Chlorobenzene	ND		ug/kg	31	7.9	1
Trichlorofluoromethane	ND		ug/kg	250	43.	1
1,2-Dichloroethane	ND		ug/kg	62	16.	1
1,1,1-Trichloroethane	ND		ug/kg	31	10.	1
Bromodichloromethane	ND		ug/kg	31	6.8	1
trans-1,3-Dichloropropene	ND		ug/kg	62	17.	1
cis-1,3-Dichloropropene	ND		ug/kg	31	9.8	1
1,3-Dichloropropene, Total	ND		ug/kg	31	9.8	1
1,1-Dichloropropene	ND		ug/kg	31	9.9	1
Bromoform	ND		ug/kg	250	15.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	31	10.	1
Benzene	610		ug/kg	31	10.	1
Toluene	ND		ug/kg	62	34.	1
Ethylbenzene	24	J	ug/kg	62	8.7	1
Chloromethane	ND		ug/kg	250	58.	1
Bromomethane	ND		ug/kg	120	36.	1
Vinyl chloride	ND		ug/kg	62	21.	1
Chloroethane	ND		ug/kg	120	28.	1
1,1-Dichloroethene	ND		ug/kg	62	15.	1
trans-1,2-Dichloroethene	ND		ug/kg	93	8.5	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-06

Date Collected: 01/08/19 13:15

Client ID: RB15_23-25

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	31	8.5	1
1,2-Dichlorobenzene	ND		ug/kg	120	8.9	1
1,3-Dichlorobenzene	ND		ug/kg	120	9.2	1
1,4-Dichlorobenzene	ND		ug/kg	120	11.	1
Methyl tert butyl ether	ND		ug/kg	120	12.	1
p/m-Xylene	57	J	ug/kg	120	35.	1
o-Xylene	46	J	ug/kg	62	18.	1
Xylenes, Total	100	J	ug/kg	62	18.	1
cis-1,2-Dichloroethene	ND		ug/kg	62	11.	1
1,2-Dichloroethene, Total	ND		ug/kg	62	8.5	1
Dibromomethane	ND		ug/kg	120	15.	1
Styrene	ND		ug/kg	62	12.	1
Dichlorodifluoromethane	ND		ug/kg	620	57.	1
Acetone	ND		ug/kg	620	300	1
Carbon disulfide	ND		ug/kg	620	280	1
2-Butanone	ND		ug/kg	620	140	1
Vinyl acetate	ND		ug/kg	620	130	1
4-Methyl-2-pentanone	ND		ug/kg	620	79.	1
1,2,3-Trichloropropane	ND		ug/kg	120	7.9	1
2-Hexanone	ND		ug/kg	620	73.	1
Bromochloromethane	ND		ug/kg	120	13.	1
2,2-Dichloropropane	ND		ug/kg	120	12.	1
1,2-Dibromoethane	ND		ug/kg	62	17.	1
1,3-Dichloropropane	ND		ug/kg	120	10.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	31	8.2	1
Bromobenzene	ND		ug/kg	120	9.0	1
n-Butylbenzene	90		ug/kg	62	10.	1
sec-Butylbenzene	90		ug/kg	62	9.0	1
tert-Butylbenzene	14	J	ug/kg	120	7.3	1
o-Chlorotoluene	ND		ug/kg	120	12.	1
p-Chlorotoluene	ND		ug/kg	120	6.7	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	190	62.	1
Hexachlorobutadiene	ND		ug/kg	250	10.	1
Isopropylbenzene	280		ug/kg	62	6.8	1
p-Isopropyltoluene	43	J	ug/kg	62	6.8	1
Naphthalene	92	J	ug/kg	250	40.	1
Acrylonitrile	ND		ug/kg	250	71.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-06
 Client ID: RB15_23-25
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:15
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	530		ug/kg	62	11.	1
1,2,3-Trichlorobenzene	ND		ug/kg	120	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	120	17.	1
1,3,5-Trimethylbenzene	140		ug/kg	120	12.	1
1,2,4-Trimethylbenzene	23	J	ug/kg	120	21.	1
1,4-Dioxane	ND		ug/kg	6200	2200	1
p-Diethylbenzene	140		ug/kg	120	11.	1
p-Ethyltoluene	31	J	ug/kg	120	24.	1
1,2,4,5-Tetramethylbenzene	440		ug/kg	120	12.	1
Ethyl ether	ND		ug/kg	120	21.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	310	88.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	101		70-130
Dibromofluoromethane	97		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-07
 Client ID: RB15_28-30
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:10
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/11/19 10:28
 Analyst: MV
 Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.1	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.23	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27	1
Tetrachloroethene	ND		ug/kg	0.51	0.20	1
Chlorobenzene	ND		ug/kg	0.51	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.1	0.71	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.51	0.17	1
Bromodichloromethane	ND		ug/kg	0.51	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
cis-1,3-Dichloropropene	ND		ug/kg	0.51	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.51	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.51	0.16	1
Bromoform	ND		ug/kg	4.1	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.51	0.17	1
Benzene	0.31	J	ug/kg	0.51	0.17	1
Toluene	ND		ug/kg	1.0	0.55	1
Ethylbenzene	ND		ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.1	0.95	1
Bromomethane	ND		ug/kg	2.0	0.59	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.0	0.46	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-07

Date Collected: 01/08/19 13:10

Client ID: RB15_28-30

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.51	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.57	1
o-Xylene	ND		ug/kg	1.0	0.30	1
Xylenes, Total	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.0	0.24	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.93	1
Acetone	23		ug/kg	10	4.9	1
Carbon disulfide	ND		ug/kg	10	4.6	1
2-Butanone	ND		ug/kg	10	2.3	1
Vinyl acetate	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.21	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.28	1
1,3-Dichloropropane	ND		ug/kg	2.0	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.51	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.15	1
n-Butylbenzene	0.28	J	ug/kg	1.0	0.17	1
sec-Butylbenzene	0.72	J	ug/kg	1.0	0.15	1
tert-Butylbenzene	0.35	J	ug/kg	2.0	0.12	1
o-Chlorotoluene	ND		ug/kg	2.0	0.20	1
p-Chlorotoluene	ND		ug/kg	2.0	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.1	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.1	0.17	1
Isopropylbenzene	1.1		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.1	0.66	1
Acrylonitrile	ND		ug/kg	4.1	1.2	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-07
 Client ID: RB15_28-30
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:10
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	0.59	J	ug/kg	1.0	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.33	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.28	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.34	1
1,4-Dioxane	ND		ug/kg	100	36.	1
p-Diethylbenzene	0.51	J	ug/kg	2.0	0.18	1
p-Ethyltoluene	ND		ug/kg	2.0	0.39	1
1,2,4,5-Tetramethylbenzene	1.2	J	ug/kg	2.0	0.20	1
Ethyl ether	ND		ug/kg	2.0	0.35	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.1	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	95		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	99		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-08
 Client ID: RB16_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:40
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/11/19 00:01
 Analyst: JC
 Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.8	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.95	0.14	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.95	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.95	0.12	1
Dibromochloromethane	ND		ug/kg	0.95	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.95	0.25	1
Tetrachloroethene	1.4		ug/kg	0.48	0.19	1
Chlorobenzene	ND		ug/kg	0.48	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.8	0.66	1
1,2-Dichloroethane	ND		ug/kg	0.95	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	0.48	0.16	1
Bromodichloromethane	ND		ug/kg	0.48	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.95	0.26	1
cis-1,3-Dichloropropene	ND		ug/kg	0.48	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.48	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.48	0.15	1
Bromoform	ND		ug/kg	3.8	0.23	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.48	0.16	1
Benzene	ND		ug/kg	0.48	0.16	1
Toluene	ND		ug/kg	0.95	0.52	1
Ethylbenzene	ND		ug/kg	0.95	0.13	1
Chloromethane	ND		ug/kg	3.8	0.89	1
Bromomethane	ND		ug/kg	1.9	0.55	1
Vinyl chloride	ND		ug/kg	0.95	0.32	1
Chloroethane	ND		ug/kg	1.9	0.43	1
1,1-Dichloroethene	ND		ug/kg	0.95	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-08

Date Collected: 01/08/19 10:40

Client ID: RB16_0-2

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.48	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.9	0.19	1
p/m-Xylene	ND		ug/kg	1.9	0.53	1
o-Xylene	ND		ug/kg	0.95	0.28	1
Xylenes, Total	ND		ug/kg	0.95	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.95	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	0.95	0.13	1
Dibromomethane	ND		ug/kg	1.9	0.23	1
Styrene	ND		ug/kg	0.95	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.5	0.87	1
Acetone	ND		ug/kg	9.5	4.6	1
Carbon disulfide	ND		ug/kg	9.5	4.3	1
2-Butanone	ND		ug/kg	9.5	2.1	1
Vinyl acetate	ND		ug/kg	9.5	2.0	1
4-Methyl-2-pentanone	ND		ug/kg	9.5	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	1.9	0.12	1
2-Hexanone	ND		ug/kg	9.5	1.1	1
Bromochloromethane	ND		ug/kg	1.9	0.19	1
2,2-Dichloropropane	ND		ug/kg	1.9	0.19	1
1,2-Dibromoethane	ND		ug/kg	0.95	0.26	1
1,3-Dichloropropane	ND		ug/kg	1.9	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.48	0.12	1
Bromobenzene	ND		ug/kg	1.9	0.14	1
n-Butylbenzene	ND		ug/kg	0.95	0.16	1
sec-Butylbenzene	ND		ug/kg	0.95	0.14	1
tert-Butylbenzene	ND		ug/kg	1.9	0.11	1
o-Chlorotoluene	ND		ug/kg	1.9	0.18	1
p-Chlorotoluene	ND		ug/kg	1.9	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.8	0.95	1
Hexachlorobutadiene	ND		ug/kg	3.8	0.16	1
Isopropylbenzene	ND		ug/kg	0.95	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.95	0.10	1
Naphthalene	ND		ug/kg	3.8	0.62	1
Acrylonitrile	ND		ug/kg	3.8	1.1	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-08
 Client ID: RB16_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:40
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.95	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.9	0.31	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	0.26	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.9	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.9	0.32	1
1,4-Dioxane	ND		ug/kg	95	33.	1
p-Diethylbenzene	ND		ug/kg	1.9	0.17	1
p-Ethyltoluene	ND		ug/kg	1.9	0.36	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.9	0.18	1
Ethyl ether	ND		ug/kg	1.9	0.32	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.8	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	93		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-09
 Client ID: RB16_13-15
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:45
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/11/19 00:27
 Analyst: JC
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.8	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.95	0.14	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.95	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.95	0.12	1
Dibromochloromethane	ND		ug/kg	0.95	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.95	0.25	1
Tetrachloroethene	0.40	J	ug/kg	0.48	0.19	1
Chlorobenzene	ND		ug/kg	0.48	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.8	0.66	1
1,2-Dichloroethane	ND		ug/kg	0.95	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	0.48	0.16	1
Bromodichloromethane	ND		ug/kg	0.48	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.95	0.26	1
cis-1,3-Dichloropropene	ND		ug/kg	0.48	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.48	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.48	0.15	1
Bromoform	ND		ug/kg	3.8	0.23	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.48	0.16	1
Benzene	ND		ug/kg	0.48	0.16	1
Toluene	ND		ug/kg	0.95	0.52	1
Ethylbenzene	ND		ug/kg	0.95	0.13	1
Chloromethane	ND		ug/kg	3.8	0.89	1
Bromomethane	ND		ug/kg	1.9	0.55	1
Vinyl chloride	ND		ug/kg	0.95	0.32	1
Chloroethane	ND		ug/kg	1.9	0.43	1
1,1-Dichloroethene	ND		ug/kg	0.95	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-09

Date Collected: 01/08/19 10:45

Client ID: RB16_13-15

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.48	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	1.9	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.9	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.9	0.19	1
p/m-Xylene	ND		ug/kg	1.9	0.53	1
o-Xylene	ND		ug/kg	0.95	0.28	1
Xylenes, Total	ND		ug/kg	0.95	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.95	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	0.95	0.13	1
Dibromomethane	ND		ug/kg	1.9	0.23	1
Styrene	ND		ug/kg	0.95	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.5	0.87	1
Acetone	ND		ug/kg	9.5	4.6	1
Carbon disulfide	ND		ug/kg	9.5	4.3	1
2-Butanone	ND		ug/kg	9.5	2.1	1
Vinyl acetate	ND		ug/kg	9.5	2.0	1
4-Methyl-2-pentanone	ND		ug/kg	9.5	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	1.9	0.12	1
2-Hexanone	ND		ug/kg	9.5	1.1	1
Bromochloromethane	ND		ug/kg	1.9	0.20	1
2,2-Dichloropropane	ND		ug/kg	1.9	0.19	1
1,2-Dibromoethane	ND		ug/kg	0.95	0.27	1
1,3-Dichloropropane	ND		ug/kg	1.9	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.48	0.13	1
Bromobenzene	ND		ug/kg	1.9	0.14	1
n-Butylbenzene	ND		ug/kg	0.95	0.16	1
sec-Butylbenzene	ND		ug/kg	0.95	0.14	1
tert-Butylbenzene	ND		ug/kg	1.9	0.11	1
o-Chlorotoluene	ND		ug/kg	1.9	0.18	1
p-Chlorotoluene	ND		ug/kg	1.9	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.95	1
Hexachlorobutadiene	ND		ug/kg	3.8	0.16	1
Isopropylbenzene	ND		ug/kg	0.95	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.95	0.10	1
Naphthalene	ND		ug/kg	3.8	0.62	1
Acrylonitrile	ND		ug/kg	3.8	1.1	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-09
Client ID: RB16_13-15
Sample Location: BRONX, NY

Date Collected: 01/08/19 10:45
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.95	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.9	0.31	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.9	0.26	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.9	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.9	0.32	1
1,4-Dioxane	ND		ug/kg	95	34.	1
p-Diethylbenzene	ND		ug/kg	1.9	0.17	1
p-Ethyltoluene	ND		ug/kg	1.9	0.37	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.9	0.18	1
Ethyl ether	ND		ug/kg	1.9	0.32	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.8	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	95		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-10
 Client ID: RB16_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:50
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/11/19 00:53
 Analyst: JC
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.9	2.2	1
1,1-Dichloroethane	ND		ug/kg	0.98	0.14	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	0.98	0.22	1
1,2-Dichloropropane	ND		ug/kg	0.98	0.12	1
Dibromochloromethane	ND		ug/kg	0.98	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	0.98	0.26	1
Tetrachloroethene	ND		ug/kg	0.49	0.19	1
Chlorobenzene	ND		ug/kg	0.49	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.9	0.68	1
1,2-Dichloroethane	ND		ug/kg	0.98	0.25	1
1,1,1-Trichloroethane	ND		ug/kg	0.49	0.16	1
Bromodichloromethane	ND		ug/kg	0.49	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	0.98	0.27	1
cis-1,3-Dichloropropene	ND		ug/kg	0.49	0.15	1
1,3-Dichloropropene, Total	ND		ug/kg	0.49	0.15	1
1,1-Dichloropropene	ND		ug/kg	0.49	0.16	1
Bromoform	ND		ug/kg	3.9	0.24	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.49	0.16	1
Benzene	ND		ug/kg	0.49	0.16	1
Toluene	ND		ug/kg	0.98	0.53	1
Ethylbenzene	ND		ug/kg	0.98	0.14	1
Chloromethane	ND		ug/kg	3.9	0.91	1
Bromomethane	ND		ug/kg	2.0	0.57	1
Vinyl chloride	ND		ug/kg	0.98	0.33	1
Chloroethane	ND		ug/kg	2.0	0.44	1
1,1-Dichloroethene	ND		ug/kg	0.98	0.23	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.13	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-10

Date Collected: 01/08/19 10:50

Client ID: RB16_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.49	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17	1
Methyl tert butyl ether	ND		ug/kg	2.0	0.20	1
p/m-Xylene	ND		ug/kg	2.0	0.55	1
o-Xylene	ND		ug/kg	0.98	0.28	1
Xylenes, Total	ND		ug/kg	0.98	0.28	1
cis-1,2-Dichloroethene	ND		ug/kg	0.98	0.17	1
1,2-Dichloroethene, Total	ND		ug/kg	0.98	0.13	1
Dibromomethane	ND		ug/kg	2.0	0.23	1
Styrene	ND		ug/kg	0.98	0.19	1
Dichlorodifluoromethane	ND		ug/kg	9.8	0.90	1
Acetone	ND		ug/kg	9.8	4.7	1
Carbon disulfide	ND		ug/kg	9.8	4.4	1
2-Butanone	ND		ug/kg	9.8	2.2	1
Vinyl acetate	ND		ug/kg	9.8	2.1	1
4-Methyl-2-pentanone	ND		ug/kg	9.8	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.12	1
2-Hexanone	ND		ug/kg	9.8	1.2	1
Bromochloromethane	ND		ug/kg	2.0	0.20	1
2,2-Dichloropropane	ND		ug/kg	2.0	0.20	1
1,2-Dibromoethane	ND		ug/kg	0.98	0.27	1
1,3-Dichloropropane	ND		ug/kg	2.0	0.16	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.49	0.13	1
Bromobenzene	ND		ug/kg	2.0	0.14	1
n-Butylbenzene	ND		ug/kg	0.98	0.16	1
sec-Butylbenzene	ND		ug/kg	0.98	0.14	1
tert-Butylbenzene	ND		ug/kg	2.0	0.12	1
o-Chlorotoluene	ND		ug/kg	2.0	0.19	1
p-Chlorotoluene	ND		ug/kg	2.0	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.9	0.98	1
Hexachlorobutadiene	ND		ug/kg	3.9	0.16	1
Isopropylbenzene	ND		ug/kg	0.98	0.11	1
p-Isopropyltoluene	ND		ug/kg	0.98	0.11	1
Naphthalene	ND		ug/kg	3.9	0.64	1
Acrylonitrile	ND		ug/kg	3.9	1.1	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-10
Client ID: RB16_18-20
Sample Location: BRONX, NY

Date Collected: 01/08/19 10:50
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.98	0.17	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33	1
1,4-Dioxane	ND		ug/kg	98	34.	1
p-Diethylbenzene	ND		ug/kg	2.0	0.17	1
p-Ethyltoluene	ND		ug/kg	2.0	0.38	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19	1
Ethyl ether	ND		ug/kg	2.0	0.33	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.9	1.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	94		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-11
 Client ID: SODUP05_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 01/11/19 02:35
 Analyst: MV
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
Methylene chloride	ND		ug/kg	330	150	1
1,1-Dichloroethane	ND		ug/kg	66	9.5	1
Chloroform	ND		ug/kg	99	9.2	1
Carbon tetrachloride	ND		ug/kg	66	15.	1
1,2-Dichloropropane	ND		ug/kg	66	8.2	1
Dibromochloromethane	ND		ug/kg	66	9.2	1
1,1,2-Trichloroethane	ND		ug/kg	66	18.	1
Tetrachloroethene	ND		ug/kg	33	13.	1
Chlorobenzene	ND		ug/kg	33	8.4	1
Trichlorofluoromethane	ND		ug/kg	260	46.	1
1,2-Dichloroethane	ND		ug/kg	66	17.	1
1,1,1-Trichloroethane	ND		ug/kg	33	11.	1
Bromodichloromethane	ND		ug/kg	33	7.2	1
trans-1,3-Dichloropropene	ND		ug/kg	66	18.	1
cis-1,3-Dichloropropene	ND		ug/kg	33	10.	1
1,3-Dichloropropene, Total	ND		ug/kg	33	10.	1
1,1-Dichloropropene	ND		ug/kg	33	10.	1
Bromoform	ND		ug/kg	260	16.	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	33	11.	1
Benzene	280		ug/kg	33	11.	1
Toluene	ND		ug/kg	66	36.	1
Ethylbenzene	16	J	ug/kg	66	9.3	1
Chloromethane	ND		ug/kg	260	61.	1
Bromomethane	ND		ug/kg	130	38.	1
Vinyl chloride	ND		ug/kg	66	22.	1
Chloroethane	ND		ug/kg	130	30.	1
1,1-Dichloroethene	ND		ug/kg	66	16.	1
trans-1,2-Dichloroethene	ND		ug/kg	99	9.0	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-11
 Client ID: SODUP05_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 High - Westborough Lab						
Trichloroethene	ND		ug/kg	33	9.0	1
1,2-Dichlorobenzene	ND		ug/kg	130	9.5	1
1,3-Dichlorobenzene	ND		ug/kg	130	9.7	1
1,4-Dichlorobenzene	ND		ug/kg	130	11.	1
Methyl tert butyl ether	ND		ug/kg	130	13.	1
p/m-Xylene	ND		ug/kg	130	37.	1
o-Xylene	27	J	ug/kg	66	19.	1
Xylenes, Total	27	J	ug/kg	66	19.	1
cis-1,2-Dichloroethene	ND		ug/kg	66	12.	1
1,2-Dichloroethene, Total	ND		ug/kg	66	9.0	1
Dibromomethane	ND		ug/kg	130	16.	1
Styrene	ND		ug/kg	66	13.	1
Dichlorodifluoromethane	ND		ug/kg	660	60.	1
Acetone	ND		ug/kg	660	320	1
Carbon disulfide	ND		ug/kg	660	300	1
2-Butanone	ND		ug/kg	660	150	1
Vinyl acetate	ND		ug/kg	660	140	1
4-Methyl-2-pentanone	ND		ug/kg	660	84.	1
1,2,3-Trichloropropane	ND		ug/kg	130	8.4	1
2-Hexanone	ND		ug/kg	660	78.	1
Bromochloromethane	ND		ug/kg	130	13.	1
2,2-Dichloropropane	ND		ug/kg	130	13.	1
1,2-Dibromoethane	ND		ug/kg	66	18.	1
1,3-Dichloropropane	ND		ug/kg	130	11.	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	33	8.7	1
Bromobenzene	ND		ug/kg	130	9.5	1
n-Butylbenzene	44	J	ug/kg	66	11.	1
sec-Butylbenzene	51	J	ug/kg	66	9.6	1
tert-Butylbenzene	ND		ug/kg	130	7.8	1
o-Chlorotoluene	ND		ug/kg	130	12.	1
p-Chlorotoluene	ND		ug/kg	130	7.1	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	200	66.	1
Hexachlorobutadiene	ND		ug/kg	260	11.	1
Isopropylbenzene	150		ug/kg	66	7.2	1
p-Isopropyltoluene	12	J	ug/kg	66	7.2	1
Naphthalene	53	J	ug/kg	260	43.	1
Acrylonitrile	ND		ug/kg	260	76.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-11
Client ID: SODUP05_010819
Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 High - Westborough Lab						
n-Propylbenzene	270		ug/kg	66	11.	1
1,2,3-Trichlorobenzene	ND		ug/kg	130	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	130	18.	1
1,3,5-Trimethylbenzene	62	J	ug/kg	130	13.	1
1,2,4-Trimethylbenzene	ND		ug/kg	130	22.	1
1,4-Dioxane	ND		ug/kg	6600	2300	1
p-Diethylbenzene	81	J	ug/kg	130	12.	1
p-Ethyltoluene	ND		ug/kg	130	25.	1
1,2,4,5-Tetramethylbenzene	260		ug/kg	130	12.	1
Ethyl ether	ND		ug/kg	130	22.	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	330	93.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	99		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-12
 Client ID: SOFB04_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/10/19 12:17
 Analyst: PK

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-12
 Client ID: SOFB04_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-12
 Client ID: SOFB04_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	103		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-13
 Client ID: SOTB07_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 01/09/19 11:32
 Analyst: RR

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-13
 Client ID: SOTB07_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-13
 Client ID: SOTB07_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	98		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/09/19 10:42
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13 Batch: WG1196086-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/09/19 10:42
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13 Batch: WG1196086-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8260C
 Analytical Date: 01/09/19 10:42
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13 Batch: WG1196086-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	97		70-130

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/10/19 11:50
 Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12 Batch: WG1196485-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/10/19 11:50
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12 Batch: WG1196485-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/10/19 11:50
Analyst: NLK

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 12 Batch: WG1196485-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	103		70-130



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/10/19 19:13
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 02,04,11 Batch: WG1196648-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/10/19 19:13
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 02,04,11 Batch: WG1196648-5					
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/10/19 19:13
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 High - Westborough Lab for sample(s): 02,04,11 Batch: WG1196648-5					
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	5000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	94		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	94		70-130
Dibromofluoromethane	100		70-130



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/10/19 19:42
Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,03,08-10 Batch: WG1196736-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8260C
 Analytical Date: 01/10/19 19:42
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,03,08-10 Batch: WG1196736-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19



Project Name: GERARD AVE. + E. 146TH ST.
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**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
 Analytical Date: 01/10/19 19:42
 Analyst: AD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01,03,08-10 Batch: WG1196736-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	89		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	90		70-130



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

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Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/11/19 07:53
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1196750-5					
Methylene chloride	ND		ug/kg	250	110
1,1-Dichloroethane	ND		ug/kg	50	7.2
Chloroform	ND		ug/kg	75	7.0
Carbon tetrachloride	ND		ug/kg	50	12.
1,2-Dichloropropane	ND		ug/kg	50	6.2
Dibromochloromethane	ND		ug/kg	50	7.0
1,1,2-Trichloroethane	ND		ug/kg	50	13.
Tetrachloroethene	ND		ug/kg	25	9.8
Chlorobenzene	ND		ug/kg	25	6.4
Trichlorofluoromethane	ND		ug/kg	200	35.
1,2-Dichloroethane	ND		ug/kg	50	13.
1,1,1-Trichloroethane	ND		ug/kg	25	8.4
Bromodichloromethane	ND		ug/kg	25	5.4
trans-1,3-Dichloropropene	ND		ug/kg	50	14.
cis-1,3-Dichloropropene	ND		ug/kg	25	7.9
1,3-Dichloropropene, Total	ND		ug/kg	25	7.9
1,1-Dichloropropene	ND		ug/kg	25	8.0
Bromoform	ND		ug/kg	200	12.
1,1,2,2-Tetrachloroethane	ND		ug/kg	25	8.3
Benzene	ND		ug/kg	25	8.3
Toluene	ND		ug/kg	50	27.
Ethylbenzene	ND		ug/kg	50	7.0
Chloromethane	ND		ug/kg	200	47.
Bromomethane	ND		ug/kg	100	29.
Vinyl chloride	ND		ug/kg	50	17.
Chloroethane	ND		ug/kg	100	23.
1,1-Dichloroethene	ND		ug/kg	50	12.
trans-1,2-Dichloroethene	ND		ug/kg	75	6.8
Trichloroethene	ND		ug/kg	25	6.8

Project Name: GERARD AVE. + E. 146TH ST.
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Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 01/11/19 07:53
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1196750-5					
1,2-Dichlorobenzene	ND		ug/kg	100	7.2
1,3-Dichlorobenzene	ND		ug/kg	100	7.4
1,4-Dichlorobenzene	ND		ug/kg	100	8.6
Methyl tert butyl ether	ND		ug/kg	100	10.
p/m-Xylene	ND		ug/kg	100	28.
o-Xylene	ND		ug/kg	50	14.
Xylenes, Total	ND		ug/kg	50	14.
cis-1,2-Dichloroethene	ND		ug/kg	50	8.8
1,2-Dichloroethene, Total	ND		ug/kg	50	6.8
Dibromomethane	ND		ug/kg	100	12.
Styrene	ND		ug/kg	50	9.8
Dichlorodifluoromethane	ND		ug/kg	500	46.
Acetone	ND		ug/kg	500	240
Carbon disulfide	ND		ug/kg	500	230
2-Butanone	ND		ug/kg	500	110
Vinyl acetate	ND		ug/kg	500	110
4-Methyl-2-pentanone	ND		ug/kg	500	64.
1,2,3-Trichloropropane	ND		ug/kg	100	6.4
2-Hexanone	ND		ug/kg	500	59.
Bromochloromethane	ND		ug/kg	100	10.
2,2-Dichloropropane	ND		ug/kg	100	10.
1,2-Dibromoethane	ND		ug/kg	50	14.
1,3-Dichloropropane	ND		ug/kg	100	8.4
1,1,1,2-Tetrachloroethane	ND		ug/kg	25	6.6
Bromobenzene	ND		ug/kg	100	7.2
n-Butylbenzene	ND		ug/kg	50	8.4
sec-Butylbenzene	ND		ug/kg	50	7.3
tert-Butylbenzene	ND		ug/kg	100	5.9
o-Chlorotoluene	ND		ug/kg	100	9.6

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

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Report Date: 01/18/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
 Analytical Date: 01/11/19 07:53
 Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06 Batch: WG1196750-5					
p-Chlorotoluene	ND		ug/kg	100	5.4
1,2-Dibromo-3-chloropropane	ND		ug/kg	150	50.
Hexachlorobutadiene	ND		ug/kg	200	8.4
Isopropylbenzene	ND		ug/kg	50	5.4
p-Isopropyltoluene	ND		ug/kg	50	5.4
Naphthalene	ND		ug/kg	200	32.
Acrylonitrile	ND		ug/kg	200	58.
n-Propylbenzene	ND		ug/kg	50	8.6
1,2,3-Trichlorobenzene	ND		ug/kg	100	16.
1,2,4-Trichlorobenzene	ND		ug/kg	100	14.
1,3,5-Trimethylbenzene	ND		ug/kg	100	9.6
1,2,4-Trimethylbenzene	ND		ug/kg	100	17.
1,4-Dioxane	ND		ug/kg	5000	1800
p-Diethylbenzene	ND		ug/kg	100	8.8
p-Ethyltoluene	ND		ug/kg	100	19.
1,2,4,5-Tetramethylbenzene	ND		ug/kg	100	9.6
Ethyl ether	ND		ug/kg	100	17.
trans-1,4-Dichloro-2-butene	ND		ug/kg	250	71.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	100		70-130

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/11/19 07:53
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 05,07 Batch: WG1196778-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: GERARD AVE. + E. 146TH ST.
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Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 01/11/19 07:53
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 05,07 Batch: WG1196778-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
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**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 01/11/19 07:53
Analyst: MV

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 05,07 Batch: WG1196778-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	100	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	96		70-130
Dibromofluoromethane	100		70-130



Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
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Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1196086-3 WG1196086-4								
Methylene chloride	93		94		70-130	1		20
1,1-Dichloroethane	94		93		70-130	1		20
Chloroform	91		90		70-130	1		20
Carbon tetrachloride	85		84		63-132	1		20
1,2-Dichloropropane	96		97		70-130	1		20
Dibromochloromethane	96		92		63-130	4		20
1,1,2-Trichloroethane	100		98		70-130	2		20
Tetrachloroethene	94		92		70-130	2		20
Chlorobenzene	95		95		75-130	0		20
Trichlorofluoromethane	88		84		62-150	5		20
1,2-Dichloroethane	90		90		70-130	0		20
1,1,1-Trichloroethane	89		87		67-130	2		20
Bromodichloromethane	92		92		67-130	0		20
trans-1,3-Dichloropropene	100		97		70-130	3		20
cis-1,3-Dichloropropene	94		94		70-130	0		20
1,1-Dichloropropene	91		90		70-130	1		20
Bromoform	100		100		54-136	0		20
1,1,2,2-Tetrachloroethane	110		100		67-130	10		20
Benzene	88		88		70-130	0		20
Toluene	97		97		70-130	0		20
Ethylbenzene	94		93		70-130	1		20
Chloromethane	74		73		64-130	1		20
Bromomethane	74		76		39-139	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1196086-3 WG1196086-4								
Vinyl chloride	81		78		55-140	4		20
Chloroethane	92		90		55-138	2		20
1,1-Dichloroethene	94		91		61-145	3		20
trans-1,2-Dichloroethene	91		92		70-130	1		20
Trichloroethene	94		93		70-130	1		20
1,2-Dichlorobenzene	100		100		70-130	0		20
1,3-Dichlorobenzene	100		100		70-130	0		20
1,4-Dichlorobenzene	100		100		70-130	0		20
Methyl tert butyl ether	98		97		63-130	1		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	91		91		70-130	0		20
Dibromomethane	92		93		70-130	1		20
1,2,3-Trichloropropane	120		120		64-130	0		20
Acrylonitrile	130		120		70-130	8		20
Styrene	95		100		70-130	5		20
Dichlorodifluoromethane	64		62		36-147	3		20
Acetone	130		110		58-148	17		20
Carbon disulfide	96		94		51-130	2		20
2-Butanone	110		110		63-138	0		20
Vinyl acetate	120		110		70-130	9		20
4-Methyl-2-pentanone	120		110		59-130	9		20
2-Hexanone	110		100		57-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

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Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1196086-3 WG1196086-4								
Bromochloromethane	96		94		70-130	2		20
2,2-Dichloropropane	100		95		63-133	5		20
1,2-Dibromoethane	98		97		70-130	1		20
1,3-Dichloropropane	99		98		70-130	1		20
1,1,1,2-Tetrachloroethane	93		94		64-130	1		20
Bromobenzene	100		100		70-130	0		20
n-Butylbenzene	100		100		53-136	0		20
sec-Butylbenzene	100		110		70-130	10		20
tert-Butylbenzene	84		86		70-130	2		20
o-Chlorotoluene	96		97		70-130	1		20
p-Chlorotoluene	99		100		70-130	1		20
1,2-Dibromo-3-chloropropane	110		98		41-144	12		20
Hexachlorobutadiene	93		91		63-130	2		20
Isopropylbenzene	100		100		70-130	0		20
p-Isopropyltoluene	98		99		70-130	1		20
Naphthalene	86		80		70-130	7		20
n-Propylbenzene	100		100		69-130	0		20
1,2,3-Trichlorobenzene	88		82		70-130	7		20
1,2,4-Trichlorobenzene	89		85		70-130	5		20
1,3,5-Trimethylbenzene	100		100		64-130	0		20
1,2,4-Trimethylbenzene	100		100		70-130	0		20
1,4-Dioxane	170	Q	160		56-162	6		20
p-Diethylbenzene	96		96		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13 Batch: WG1196086-3 WG1196086-4								
p-Ethyltoluene	100		100		70-130	0		20
1,2,4,5-Tetramethylbenzene	87		90		70-130	3		20
Ethyl ether	100		100		59-134	0		20
trans-1,4-Dichloro-2-butene	94		100		70-130	6		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	99		98		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	97		99		70-130
Dibromofluoromethane	99		99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12 Batch: WG1196485-3 WG1196485-4								
Methylene chloride	100		100		70-130	0		20
1,1-Dichloroethane	100		100		70-130	0		20
Chloroform	100		110		70-130	10		20
Carbon tetrachloride	95		94		63-132	1		20
1,2-Dichloropropane	100		100		70-130	0		20
Dibromochloromethane	98		99		63-130	1		20
1,1,2-Trichloroethane	99		97		70-130	2		20
Tetrachloroethene	93		91		70-130	2		20
Chlorobenzene	100		98		75-130	2		20
Trichlorofluoromethane	86		87		62-150	1		20
1,2-Dichloroethane	100		100		70-130	0		20
1,1,1-Trichloroethane	99		100		67-130	1		20
Bromodichloromethane	100		100		67-130	0		20
trans-1,3-Dichloropropene	94		94		70-130	0		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
1,1-Dichloropropene	93		95		70-130	2		20
Bromoform	96		97		54-136	1		20
1,1,2,2-Tetrachloroethane	96		95		67-130	1		20
Benzene	98		98		70-130	0		20
Toluene	99		97		70-130	2		20
Ethylbenzene	95		94		70-130	1		20
Chloromethane	65		68		64-130	5		20
Bromomethane	37	Q	37	Q	39-139	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12 Batch: WG1196485-3 WG1196485-4								
Vinyl chloride	95		95		55-140	0		20
Chloroethane	120		120		55-138	0		20
1,1-Dichloroethene	94		94		61-145	0		20
trans-1,2-Dichloroethene	100		100		70-130	0		20
Trichloroethene	100		99		70-130	1		20
1,2-Dichlorobenzene	96		95		70-130	1		20
1,3-Dichlorobenzene	98		97		70-130	1		20
1,4-Dichlorobenzene	98		97		70-130	1		20
Methyl tert butyl ether	100		100		63-130	0		20
p/m-Xylene	100		95		70-130	5		20
o-Xylene	100		95		70-130	5		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Dibromomethane	100		100		70-130	0		20
1,2,3-Trichloropropane	96		94		64-130	2		20
Acrylonitrile	100		97		70-130	3		20
Styrene	90		90		70-130	0		20
Dichlorodifluoromethane	62		62		36-147	0		20
Acetone	62		61		58-148	2		20
Carbon disulfide	98		98		51-130	0		20
2-Butanone	82		80		63-138	2		20
Vinyl acetate	110		110		70-130	0		20
4-Methyl-2-pentanone	84		80		59-130	5		20
2-Hexanone	76		76		57-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12 Batch: WG1196485-3 WG1196485-4								
Bromochloromethane	110		110		70-130	0		20
2,2-Dichloropropane	100		99		63-133	1		20
1,2-Dibromoethane	95		97		70-130	2		20
1,3-Dichloropropane	98		98		70-130	0		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	97		97		70-130	0		20
n-Butylbenzene	83		82		53-136	1		20
sec-Butylbenzene	85		84		70-130	1		20
tert-Butylbenzene	86		85		70-130	1		20
o-Chlorotoluene	93		92		70-130	1		20
p-Chlorotoluene	94		93		70-130	1		20
1,2-Dibromo-3-chloropropane	87		88		41-144	1		20
Hexachlorobutadiene	65		66		63-130	2		20
Isopropylbenzene	90		88		70-130	2		20
p-Isopropyltoluene	86		84		70-130	2		20
Naphthalene	83		81		70-130	2		20
n-Propylbenzene	90		88		69-130	2		20
1,2,3-Trichlorobenzene	87		85		70-130	2		20
1,2,4-Trichlorobenzene	86		86		70-130	0		20
1,3,5-Trimethylbenzene	93		92		64-130	1		20
1,2,4-Trimethylbenzene	92		90		70-130	2		20
1,4-Dioxane	78		106		56-162	30	Q	20
p-Diethylbenzene	84		83		70-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 12 Batch: WG1196485-3 WG1196485-4								
p-Ethyltoluene	91		90		70-130	1		20
1,2,4,5-Tetramethylbenzene	82		82		70-130	0		20
Ethyl ether	100		100		59-134	0		20
trans-1,4-Dichloro-2-butene	92		88		70-130	4		20

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	99		98		70-130
Toluene-d8	98		98		70-130
4-Bromofluorobenzene	94		92		70-130
Dibromofluoromethane	102		103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02,04,11 Batch: WG1196648-3 WG1196648-4								
Methylene chloride	85		86		70-130	1		30
1,1-Dichloroethane	88		89		70-130	1		30
Chloroform	90		90		70-130	0		30
Carbon tetrachloride	91		92		70-130	1		30
1,2-Dichloropropane	88		88		70-130	0		30
Dibromochloromethane	88		89		70-130	1		30
1,1,2-Trichloroethane	88		88		70-130	0		30
Tetrachloroethene	92		94		70-130	2		30
Chlorobenzene	86		88		70-130	2		30
Trichlorofluoromethane	100		104		70-139	4		30
1,2-Dichloroethane	91		90		70-130	1		30
1,1,1-Trichloroethane	91		93		70-130	2		30
Bromodichloromethane	88		89		70-130	1		30
trans-1,3-Dichloropropene	86		86		70-130	0		30
cis-1,3-Dichloropropene	88		88		70-130	0		30
1,1-Dichloropropene	89		92		70-130	3		30
Bromoform	88		88		70-130	0		30
1,1,2,2-Tetrachloroethane	84		82		70-130	2		30
Benzene	89		91		70-130	2		30
Toluene	86		89		70-130	3		30
Ethylbenzene	86		89		70-130	3		30
Chloromethane	85		84		52-130	1		30
Bromomethane	94		96		57-147	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02,04,11 Batch: WG1196648-3 WG1196648-4									
Vinyl chloride	89		90		67-130	1		30	
Chloroethane	96		96		50-151	0		30	
1,1-Dichloroethene	90		92		65-135	2		30	
trans-1,2-Dichloroethene	91		91		70-130	0		30	
Trichloroethene	91		93		70-130	2		30	
1,2-Dichlorobenzene	88		88		70-130	0		30	
1,3-Dichlorobenzene	88		89		70-130	1		30	
1,4-Dichlorobenzene	88		89		70-130	1		30	
Methyl tert butyl ether	91		91		66-130	0		30	
p/m-Xylene	87		89		70-130	2		30	
o-Xylene	86		88		70-130	2		30	
cis-1,2-Dichloroethene	92		93		70-130	1		30	
Dibromomethane	94		92		70-130	2		30	
Styrene	84		87		70-130	4		30	
Dichlorodifluoromethane	85		85		30-146	0		30	
Acetone	85		84		54-140	1		30	
Carbon disulfide	84		86		59-130	2		30	
2-Butanone	89		86		70-130	3		30	
Vinyl acetate	90		87		70-130	3		30	
4-Methyl-2-pentanone	82		80		70-130	2		30	
1,2,3-Trichloropropane	87		84		68-130	4		30	
2-Hexanone	80		78		70-130	3		30	
Bromochloromethane	98		98		70-130	0		30	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02,04,11 Batch: WG1196648-3 WG1196648-4									
2,2-Dichloropropane	90		92		70-130	2		30	
1,2-Dibromoethane	91		92		70-130	1		30	
1,3-Dichloropropane	89		88		69-130	1		30	
1,1,1,2-Tetrachloroethane	87		90		70-130	3		30	
Bromobenzene	88		88		70-130	0		30	
n-Butylbenzene	86		88		70-130	2		30	
sec-Butylbenzene	85		88		70-130	3		30	
tert-Butylbenzene	85		88		70-130	3		30	
o-Chlorotoluene	83		84		70-130	1		30	
p-Chlorotoluene	84		86		70-130	2		30	
1,2-Dibromo-3-chloropropane	84		81		68-130	4		30	
Hexachlorobutadiene	89		90		67-130	1		30	
Isopropylbenzene	86		89		70-130	3		30	
p-Isopropyltoluene	87		90		70-130	3		30	
Naphthalene	87		86		70-130	1		30	
Acrylonitrile	95		92		70-130	3		30	
n-Propylbenzene	85		88		70-130	3		30	
1,2,3-Trichlorobenzene	90		90		70-130	0		30	
1,2,4-Trichlorobenzene	90		88		70-130	2		30	
1,3,5-Trimethylbenzene	86		88		70-130	2		30	
1,2,4-Trimethylbenzene	85		87		70-130	2		30	
1,4-Dioxane	90		88		65-136	2		30	
p-Diethylbenzene	87		89		70-130	2		30	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 High - Westborough Lab Associated sample(s): 02,04,11 Batch: WG1196648-3 WG1196648-4								
p-Ethyltoluene	87		88		70-130	1		30
1,2,4,5-Tetramethylbenzene	86		87		70-130	1		30
Ethyl ether	100		98		67-130	2		30
trans-1,4-Dichloro-2-butene	84		83		70-130	1		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	97		93		70-130
Toluene-d8	97		99		70-130
4-Bromofluorobenzene	96		96		70-130
Dibromofluoromethane	102		102		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03,08-10 Batch: WG1196736-3 WG1196736-4								
Methylene chloride	83		82		70-130	1		30
1,1-Dichloroethane	85		82		70-130	4		30
Chloroform	86		84		70-130	2		30
Carbon tetrachloride	86		86		70-130	0		30
1,2-Dichloropropane	83		81		70-130	2		30
Dibromochloromethane	83		81		70-130	2		30
1,1,2-Trichloroethane	88		84		70-130	5		30
Tetrachloroethene	90		90		70-130	0		30
Chlorobenzene	85		84		70-130	1		30
Trichlorofluoromethane	112		112		70-139	0		30
1,2-Dichloroethane	83		79		70-130	5		30
1,1,1-Trichloroethane	89		86		70-130	3		30
Bromodichloromethane	82		79		70-130	4		30
trans-1,3-Dichloropropene	84		81		70-130	4		30
cis-1,3-Dichloropropene	82		80		70-130	2		30
1,1-Dichloropropene	90		88		70-130	2		30
Bromoform	83		81		70-130	2		30
1,1,2,2-Tetrachloroethane	88		84		70-130	5		30
Benzene	85		83		70-130	2		30
Toluene	86		85		70-130	1		30
Ethylbenzene	84		84		70-130	0		30
Chloromethane	103		102		52-130	1		30
Bromomethane	118		119		57-147	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03,08-10 Batch: WG1196736-3 WG1196736-4								
Vinyl chloride	119		118		67-130	1		30
Chloroethane	119		121		50-151	2		30
1,1-Dichloroethene	92		91		65-135	1		30
trans-1,2-Dichloroethene	88		86		70-130	2		30
Trichloroethene	88		86		70-130	2		30
1,2-Dichlorobenzene	86		85		70-130	1		30
1,3-Dichlorobenzene	88		86		70-130	2		30
1,4-Dichlorobenzene	85		84		70-130	1		30
Methyl tert butyl ether	81		78		66-130	4		30
p/m-Xylene	87		86		70-130	1		30
o-Xylene	85		84		70-130	1		30
cis-1,2-Dichloroethene	85		84		70-130	1		30
Dibromomethane	87		83		70-130	5		30
Styrene	82		80		70-130	2		30
Dichlorodifluoromethane	114		114		30-146	0		30
Acetone	74		64		54-140	14		30
Carbon disulfide	90		88		59-130	2		30
2-Butanone	60	Q	58	Q	70-130	3		30
Vinyl acetate	80		76		70-130	5		30
4-Methyl-2-pentanone	74		72		70-130	3		30
1,2,3-Trichloropropane	85		81		68-130	5		30
2-Hexanone	69	Q	64	Q	70-130	8		30
Bromochloromethane	90		85		70-130	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03,08-10 Batch: WG1196736-3 WG1196736-4								
2,2-Dichloropropane	83		81		70-130	2		30
1,2-Dibromoethane	88		86		70-130	2		30
1,3-Dichloropropane	87		84		69-130	4		30
1,1,1,2-Tetrachloroethane	84		83		70-130	1		30
Bromobenzene	85		84		70-130	1		30
n-Butylbenzene	89		88		70-130	1		30
sec-Butylbenzene	89		88		70-130	1		30
tert-Butylbenzene	87		87		70-130	0		30
o-Chlorotoluene	86		84		70-130	2		30
p-Chlorotoluene	84		82		70-130	2		30
1,2-Dibromo-3-chloropropane	83		78		68-130	6		30
Hexachlorobutadiene	86		85		67-130	1		30
Isopropylbenzene	88		87		70-130	1		30
p-Isopropyltoluene	88		87		70-130	1		30
Naphthalene	83		81		70-130	2		30
Acrylonitrile	76		70		70-130	8		30
n-Propylbenzene	88		88		70-130	0		30
1,2,3-Trichlorobenzene	88		89		70-130	1		30
1,2,4-Trichlorobenzene	88		87		70-130	1		30
1,3,5-Trimethylbenzene	86		86		70-130	0		30
1,2,4-Trimethylbenzene	86		85		70-130	1		30
1,4-Dioxane	84		84		65-136	0		30
p-Diethylbenzene	86		85		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03,08-10 Batch: WG1196736-3 WG1196736-4								
p-Ethyltoluene	87		86		70-130	1		30
1,2,4,5-Tetramethylbenzene	81		80		70-130	1		30
Ethyl ether	83		81		67-130	2		30
trans-1,4-Dichloro-2-butene	78		76		70-130	3		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	91		89		70-130
Toluene-d8	99		98		70-130
4-Bromofluorobenzene	91		92		70-130
Dibromofluoromethane	95		93		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1196750-3 WG1196750-4								
Methylene chloride	88		88		70-130	0		30
1,1-Dichloroethane	89		89		70-130	0		30
Chloroform	92		94		70-130	2		30
Carbon tetrachloride	90		90		70-130	0		30
1,2-Dichloropropane	90		90		70-130	0		30
Dibromochloromethane	91		90		70-130	1		30
1,1,2-Trichloroethane	91		90		70-130	1		30
Tetrachloroethene	91		93		70-130	2		30
Chlorobenzene	88		89		70-130	1		30
Trichlorofluoromethane	96		97		70-139	1		30
1,2-Dichloroethane	93		92		70-130	1		30
1,1,1-Trichloroethane	90		91		70-130	1		30
Bromodichloromethane	92		91		70-130	1		30
trans-1,3-Dichloropropene	89		88		70-130	1		30
cis-1,3-Dichloropropene	91		91		70-130	0		30
1,1-Dichloropropene	89		90		70-130	1		30
Bromoform	90		90		70-130	0		30
1,1,2,2-Tetrachloroethane	85		84		70-130	1		30
Benzene	90		91		70-130	1		30
Toluene	88		88		70-130	0		30
Ethylbenzene	87		88		70-130	1		30
Chloromethane	87		83		52-130	5		30
Bromomethane	95		97		57-147	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1196750-3 WG1196750-4								
Vinyl chloride	85		86		67-130	1		30
Chloroethane	94		95		50-151	1		30
1,1-Dichloroethene	88		89		65-135	1		30
trans-1,2-Dichloroethene	91		91		70-130	0		30
Trichloroethene	90		92		70-130	2		30
1,2-Dichlorobenzene	89		90		70-130	1		30
1,3-Dichlorobenzene	89		90		70-130	1		30
1,4-Dichlorobenzene	90		89		70-130	1		30
Methyl tert butyl ether	94		92		66-130	2		30
p/m-Xylene	87		89		70-130	2		30
o-Xylene	87		88		70-130	1		30
cis-1,2-Dichloroethene	93		93		70-130	0		30
Dibromomethane	97		94		70-130	3		30
Styrene	87		87		70-130	0		30
Dichlorodifluoromethane	82		81		30-146	1		30
Acetone	84		78		54-140	7		30
Carbon disulfide	83		84		59-130	1		30
2-Butanone	89		87		70-130	2		30
Vinyl acetate	92		91		70-130	1		30
4-Methyl-2-pentanone	82		79		70-130	4		30
1,2,3-Trichloropropane	88		87		68-130	1		30
2-Hexanone	83		79		70-130	5		30
Bromochloromethane	100		101		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1196750-3 WG1196750-4								
2,2-Dichloropropane	89		90		70-130	1		30
1,2-Dibromoethane	93		93		70-130	0		30
1,3-Dichloropropane	89		90		69-130	1		30
1,1,1,2-Tetrachloroethane	89		90		70-130	1		30
Bromobenzene	90		90		70-130	0		30
n-Butylbenzene	84		86		70-130	2		30
sec-Butylbenzene	85		87		70-130	2		30
tert-Butylbenzene	85		87		70-130	2		30
o-Chlorotoluene	84		84		70-130	0		30
p-Chlorotoluene	84		86		70-130	2		30
1,2-Dibromo-3-chloropropane	82		84		68-130	2		30
Hexachlorobutadiene	85		87		67-130	2		30
Isopropylbenzene	87		88		70-130	1		30
p-Isopropyltoluene	86		87		70-130	1		30
Naphthalene	88		88		70-130	0		30
Acrylonitrile	95		94		70-130	1		30
n-Propylbenzene	84		86		70-130	2		30
1,2,3-Trichlorobenzene	90		91		70-130	1		30
1,2,4-Trichlorobenzene	91		92		70-130	1		30
1,3,5-Trimethylbenzene	87		88		70-130	1		30
1,2,4-Trimethylbenzene	86		87		70-130	1		30
1,4-Dioxane	90		87		65-136	3		30
p-Diethylbenzene	87		88		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06 Batch: WG1196750-3 WG1196750-4								
p-Ethyltoluene	86		88		70-130	2		30
1,2,4,5-Tetramethylbenzene	87		88		70-130	1		30
Ethyl ether	100		100		67-130	0		30
trans-1,4-Dichloro-2-butene	86		85		70-130	1		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	95		94		70-130
Toluene-d8	97		98		70-130
4-Bromofluorobenzene	96		98		70-130
Dibromofluoromethane	102		103		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05,07 Batch: WG1196778-3 WG1196778-4								
Methylene chloride	88		88		70-130	0		30
1,1-Dichloroethane	89		89		70-130	0		30
Chloroform	92		94		70-130	2		30
Carbon tetrachloride	90		90		70-130	0		30
1,2-Dichloropropane	90		90		70-130	0		30
Dibromochloromethane	91		90		70-130	1		30
1,1,2-Trichloroethane	91		90		70-130	1		30
Tetrachloroethene	91		93		70-130	2		30
Chlorobenzene	88		89		70-130	1		30
Trichlorofluoromethane	96		97		70-139	1		30
1,2-Dichloroethane	93		92		70-130	1		30
1,1,1-Trichloroethane	90		91		70-130	1		30
Bromodichloromethane	92		91		70-130	1		30
trans-1,3-Dichloropropene	89		88		70-130	1		30
cis-1,3-Dichloropropene	91		91		70-130	0		30
1,1-Dichloropropene	89		90		70-130	1		30
Bromoform	90		90		70-130	0		30
1,1,2,2-Tetrachloroethane	85		84		70-130	1		30
Benzene	90		91		70-130	1		30
Toluene	88		88		70-130	0		30
Ethylbenzene	87		88		70-130	1		30
Chloromethane	87		83		52-130	5		30
Bromomethane	95		97		57-147	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05,07 Batch: WG1196778-3 WG1196778-4								
Vinyl chloride	85		86		67-130	1		30
Chloroethane	94		95		50-151	1		30
1,1-Dichloroethene	88		89		65-135	1		30
trans-1,2-Dichloroethene	91		91		70-130	0		30
Trichloroethene	90		92		70-130	2		30
1,2-Dichlorobenzene	89		90		70-130	1		30
1,3-Dichlorobenzene	89		90		70-130	1		30
1,4-Dichlorobenzene	90		89		70-130	1		30
Methyl tert butyl ether	94		92		66-130	2		30
p/m-Xylene	87		89		70-130	2		30
o-Xylene	87		88		70-130	1		30
cis-1,2-Dichloroethene	93		93		70-130	0		30
Dibromomethane	97		94		70-130	3		30
Styrene	87		87		70-130	0		30
Dichlorodifluoromethane	82		81		30-146	1		30
Acetone	84		78		54-140	7		30
Carbon disulfide	83		84		59-130	1		30
2-Butanone	89		87		70-130	2		30
Vinyl acetate	92		91		70-130	1		30
4-Methyl-2-pentanone	82		79		70-130	4		30
1,2,3-Trichloropropane	88		87		68-130	1		30
2-Hexanone	83		79		70-130	5		30
Bromochloromethane	100		101		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05,07 Batch: WG1196778-3 WG1196778-4								
2,2-Dichloropropane	89		90		70-130	1		30
1,2-Dibromoethane	93		93		70-130	0		30
1,3-Dichloropropane	89		90		69-130	1		30
1,1,1,2-Tetrachloroethane	89		90		70-130	1		30
Bromobenzene	90		90		70-130	0		30
n-Butylbenzene	84		86		70-130	2		30
sec-Butylbenzene	85		87		70-130	2		30
tert-Butylbenzene	85		87		70-130	2		30
o-Chlorotoluene	84		84		70-130	0		30
p-Chlorotoluene	84		86		70-130	2		30
1,2-Dibromo-3-chloropropane	82		84		68-130	2		30
Hexachlorobutadiene	85		87		67-130	2		30
Isopropylbenzene	87		88		70-130	1		30
p-Isopropyltoluene	86		87		70-130	1		30
Naphthalene	88		88		70-130	0		30
Acrylonitrile	95		94		70-130	1		30
n-Propylbenzene	84		86		70-130	2		30
1,2,3-Trichlorobenzene	90		91		70-130	1		30
1,2,4-Trichlorobenzene	91		92		70-130	1		30
1,3,5-Trimethylbenzene	87		88		70-130	1		30
1,2,4-Trimethylbenzene	86		87		70-130	1		30
1,4-Dioxane	90		87		65-136	3		30
p-Diethylbenzene	87		88		70-130	1		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05,07 Batch: WG1196778-3 WG1196778-4								
p-Ethyltoluene	86		88		70-130	2		30
1,2,4,5-Tetramethylbenzene	87		88		70-130	1		30
Ethyl ether	100		100		67-130	0		30
trans-1,4-Dichloro-2-butene	86		85		70-130	1		30

Surrogate	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
1,2-Dichloroethane-d4	95		94		70-130
Toluene-d8	97		98		70-130
4-Bromofluorobenzene	96		97		70-130
Dibromofluoromethane	102		103		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03,08-10 QC Batch ID: WG1196736-6 WG1196736-7 QC Sample: L1900879-03 Client ID: RB10_33-35												
Methylene chloride	ND	96.5	84	87		88	86		70-130	5		30
1,1-Dichloroethane	ND	96.5	91	94		95	92		70-130	4		30
Chloroform	ND	96.5	90	93		92	90		70-130	3		30
Carbon tetrachloride	ND	96.5	97	101		100	97		70-130	2		30
1,2-Dichloropropane	ND	96.5	84	87		86	84		70-130	2		30
Dibromochloromethane	ND	96.5	80	82		82	80		70-130	3		30
1,1,2-Trichloroethane	ND	96.5	80	82		82	80		70-130	2		30
Tetrachloroethene	ND	96.5	88	91		90	88		70-130	2		30
Chlorobenzene	ND	96.5	79	82		80	78		70-130	1		30
Trichlorofluoromethane	ND	96.5	130	130		130	131		70-139	6		30
1,2-Dichloroethane	ND	96.5	76	79		79	77		70-130	3		30
1,1,1-Trichloroethane	ND	96.5	97	100		100	98		70-130	3		30
Bromodichloromethane	ND	96.5	81	84		84	82		70-130	3		30
trans-1,3-Dichloropropene	ND	96.5	80	83		82	80		70-130	3		30
cis-1,3-Dichloropropene	ND	96.5	80	83		83	81		70-130	3		30
1,1-Dichloropropene	ND	96.5	97	101		100	100		70-130	5		30
Bromoform	ND	96.5	79	82		81	80		70-130	3		30
1,1,2,2-Tetrachloroethane	ND	96.5	75	78		76	74		70-130	2		30
Benzene	ND	96.5	89	92		92	90		70-130	3		30
Toluene	ND	96.5	87	90		88	86		70-130	2		30
Ethylbenzene	ND	96.5	80	83		80	78		70-130	0		30
Chloromethane	ND	96.5	110	117		120	119		52-130	8		30
Bromomethane	ND	96.5	130	135		140	134		57-147	5		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03,08-10 QC Batch ID: WG1196736-6 WG1196736-7 QC Sample: L1900879-03 Client ID: RB10_33-35												
Vinyl chloride	ND	96.5	140	142	Q	140	138	Q	67-130	3		30
Chloroethane	ND	96.5	150	152	Q	150	145		50-151	1		30
1,1-Dichloroethene	ND	96.5	110	110		110	111		65-135	7		30
trans-1,2-Dichloroethene	ND	96.5	95	98		100	98		70-130	5		30
Trichloroethene	ND	96.5	89	93		93	91		70-130	4		30
1,2-Dichlorobenzene	ND	96.5	74	76		71	70		70-130	3		30
1,3-Dichlorobenzene	ND	96.5	74	76		70	69	Q	70-130	5		30
1,4-Dichlorobenzene	ND	96.5	70	73		67	65	Q	70-130	5		30
Methyl tert butyl ether	ND	96.5	77	79		80	79		66-130	5		30
p/m-Xylene	ND	193	160	84		160	78		70-130	1		30
o-Xylene	ND	193	160	83		160	78		70-130	1		30
cis-1,2-Dichloroethene	ND	96.5	89	92		92	90		70-130	4		30
Dibromomethane	ND	96.5	79	81		81	79		70-130	3		30
Styrene	ND	193	160	81		160	76		70-130	1		30
Dichlorodifluoromethane	ND	96.5	130	137		140	140		30-146	8		30
Acetone	ND	96.5	70	72		74	72		54-140	5		30
Carbon disulfide	ND	96.5	100	106		110	106		59-130	6		30
2-Butanone	ND	96.5	64	66	Q	67	65	Q	70-130	4		30
Vinyl acetate	ND	96.5	76	79		74	73		70-130	3		30
4-Methyl-2-pentanone	ND	96.5	68	70		70	69	Q	70-130	3		30
1,2,3-Trichloropropane	ND	96.5	71	74		73	71		68-130	2		30
2-Hexanone	ND	96.5	61	63	Q	62	61	Q	70-130	2		30
Bromochloromethane	ND	96.5	87	90		90	88		70-130	4		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03,08-10 QC Batch ID: WG1196736-6 WG1196736-7 QC Sample: L1900879-03 Client ID: RB10_33-35												
2,2-Dichloropropane	ND	96.5	89	92		93	91		70-130	5		30
1,2-Dibromoethane	ND	96.5	80	83		82	80		70-130	3		30
1,3-Dichloropropane	ND	96.5	80	83		81	80		69-130	2		30
1,1,1,2-Tetrachloroethane	ND	96.5	82	85		84	82		70-130	2		30
Bromobenzene	ND	96.5	79	81		78	76		70-130	1		30
n-Butylbenzene	ND	96.5	70	72		60	59	Q	70-130	14		30
sec-Butylbenzene	ND	96.5	78	81		73	71		70-130	7		30
tert-Butylbenzene	ND	96.5	80	83		77	75		70-130	4		30
o-Chlorotoluene	ND	96.5	76	78		75	73		70-130	1		30
p-Chlorotoluene	ND	96.5	72	74		69	67	Q	70-130	5		30
1,2-Dibromo-3-chloropropane	ND	96.5	71	73		74	72		68-130	5		30
Hexachlorobutadiene	ND	96.5	65	67		52	51	Q	67-130	22		30
Isopropylbenzene	ND	96.5	84	87		82	80		70-130	2		30
p-Isopropyltoluene	ND	96.5	75	77		67	66	Q	70-130	10		30
Naphthalene	ND	96.5	67	69	Q	68	66	Q	70-130	2		30
Acrylonitrile	ND	96.5	69	72		72	70		70-130	4		30
n-Propylbenzene	ND	96.5	79	82		75	74		70-130	5		30
1,2,3-Trichlorobenzene	ND	96.5	66	68	Q	63	62	Q	70-130	4		30
1,2,4-Trichlorobenzene	ND	96.5	65	67	Q	61	60	Q	70-130	6		30
1,3,5-Trimethylbenzene	ND	96.5	78	80		74	72		70-130	5		30
1,2,4-Trimethylbenzene	ND	96.5	75	77		71	69	Q	70-130	6		30
1,4-Dioxane	ND	4830	4100	85		4100	80		65-136	0		30
p-Diethylbenzene	ND	96.5	69	71		60	59	Q	70-130	14		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900879

Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01,03,08-10 QC Batch ID: WG1196736-6 WG1196736-7 QC Sample: L1900879-03 Client ID: RB10_33-35												
p-Ethyltoluene	ND	96.5	76	78		71	69	Q	70-130	7		30
1,2,4,5-Tetramethylbenzene	ND	96.5	69	72		63	61	Q	70-130	10		30
Ethyl ether	ND	96.5	81	84		87	85		67-130	7		30
trans-1,4-Dichloro-2-butene	ND	96.5	68	70		70	68	Q	70-130	3		30

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
1,2-Dichloroethane-d4	87		86		70-130
4-Bromofluorobenzene	90		91		70-130
Dibromofluoromethane	97		95		70-130
Toluene-d8	99		98		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05,07 QC Batch ID: WG1196778-11 WG1196778-12 QC Sample: L1900879-07 Client ID: RB15_28-30												
Methylene chloride	ND	136	140	101		99	98		70-130	32	Q	30
1,1-Dichloroethane	ND	136	140	106		110	105		70-130	30		30
Chloroform	ND	136	140	105		100	103		70-130	32	Q	30
Carbon tetrachloride	ND	136	160	115		110	112		70-130	32	Q	30
1,2-Dichloropropane	ND	136	140	106		100	101		70-130	34	Q	30
Dibromochloromethane	ND	136	150	112		110	105		70-130	36	Q	30
1,1,2-Trichloroethane	ND	136	150	110		110	110		70-130	29		30
Tetrachloroethene	ND	136	140	106		98	97		70-130	38	Q	30
Chlorobenzene	ND	136	130	98		89	88		70-130	39	Q	30
Trichlorofluoromethane	ND	136	180	130		130	129		70-139	30		30
1,2-Dichloroethane	ND	136	150	109		100	101		70-130	37	Q	30
1,1,1-Trichloroethane	ND	136	160	114		110	112		70-130	31	Q	30
Bromodichloromethane	ND	136	150	108		100	101		70-130	36	Q	30
trans-1,3-Dichloropropene	ND	136	140	103		98	97		70-130	35	Q	30
cis-1,3-Dichloropropene	ND	136	140	106		99	98		70-130	37	Q	30
1,1-Dichloropropene	ND	136	150	111		110	107		70-130	33	Q	30
Bromoform	ND	136	160	115		110	106		70-130	37	Q	30
1,1,2,2-Tetrachloroethane	ND	136	140	101		95	94		70-130	37	Q	30
Benzene	0.31J	136	140	106		100	102		70-130	33	Q	30
Toluene	ND	136	140	100		97	96		70-130	34	Q	30
Ethylbenzene	ND	136	140	100		89	88		70-130	42	Q	30
Chloromethane	ND	136	130	98		100	100		52-130	28		30
Bromomethane	ND	136	150	110		120	114		57-147	26		30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05,07 QC Batch ID: WG1196778-11 WG1196778-12 QC Sample: L1900879-07 Client ID: RB15_28-30												
Vinyl chloride	ND	136	150	110		110	112		67-130	28		30
Chloroethane	ND	136	160	120		120	118		50-151	31	Q	30
1,1-Dichloroethene	ND	136	160	115		120	114		65-135	30		30
trans-1,2-Dichloroethene	ND	136	150	109		110	107		70-130	31	Q	30
Trichloroethene	ND	136	150	110		110	104		70-130	35	Q	30
1,2-Dichlorobenzene	ND	136	130	95		80	79		70-130	47	Q	30
1,3-Dichlorobenzene	ND	136	120	91		75	74		70-130	50	Q	30
1,4-Dichlorobenzene	ND	136	120	90		73	72		70-130	50	Q	30
Methyl tert butyl ether	ND	136	150	112		110	105		66-130	36	Q	30
p/m-Xylene	ND	272	270	99		170	85		70-130	44	Q	30
o-Xylene	ND	272	270	99		180	87		70-130	42	Q	30
cis-1,2-Dichloroethene	ND	136	150	108		110	106		70-130	31	Q	30
Dibromomethane	ND	136	160	116		110	107		70-130	38	Q	30
Styrene	ND	272	270	99		170	86		70-130	43	Q	30
Dichlorodifluoromethane	ND	136	140	106		110	110		30-146	26		30
Acetone	23	136	170	110		110	82		54-140	47	Q	30
Carbon disulfide	ND	136	140	106		110	104		59-130	31	Q	30
2-Butanone	ND	136	160	119		110	110		70-130	37	Q	30
Vinyl acetate	ND	136	150	111		100	102		70-130	38	Q	30
4-Methyl-2-pentanone	ND	136	150	110		100	99		70-130	40	Q	30
1,2,3-Trichloropropane	ND	136	140	104		96	95		68-130	38	Q	30
2-Hexanone	ND	136	150	107		97	96		70-130	40	Q	30
Bromochloromethane	ND	136	160	118		110	110		70-130	35	Q	30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05,07 QC Batch ID: WG1196778-11 WG1196778-12 QC Sample: L1900879-07 Client ID: RB15_28-30												
2,2-Dichloropropane	ND	136	150	108		110	107		70-130	31	Q	30
1,2-Dibromoethane	ND	136	150	112		100	103		70-130	38	Q	30
1,3-Dichloropropane	ND	136	140	105		100	99		69-130	35	Q	30
1,1,1,2-Tetrachloroethane	ND	136	140	104		100	98		70-130	34	Q	30
Bromobenzene	ND	136	130	97		87	86		70-130	41	Q	30
n-Butylbenzene	0.28J	136	120	91		62	62	Q	70-130	66	Q	30
sec-Butylbenzene	0.72J	136	140	100		78	77		70-130	54	Q	30
tert-Butylbenzene	0.35J	136	140	100		82	81		70-130	50	Q	30
o-Chlorotoluene	ND	136	120	91		77	76		70-130	47	Q	30
p-Chlorotoluene	ND	136	120	89		73	72		70-130	50	Q	30
1,2-Dibromo-3-chloropropane	ND	136	160	116		110	104		68-130	40	Q	30
Hexachlorobutadiene	ND	136	130	97		63	62	Q	67-130	71	Q	30
Isopropylbenzene	1.1	136	140	105		100	100		70-130	34	Q	30
p-Isopropyltoluene	ND	136	130	97		72	71		70-130	58	Q	30
Naphthalene	ND	136	140	101		88	87		70-130	44	Q	30
Acrylonitrile	ND	136	170	123		110	112		70-130	38	Q	30
n-Propylbenzene	0.59J	136	130	95		86	85		70-130	40	Q	30
1,2,3-Trichlorobenzene	ND	136	120	90		75	74		70-130	49	Q	30
1,2,4-Trichlorobenzene	ND	136	120	85		69	68	Q	70-130	51	Q	30
1,3,5-Trimethylbenzene	ND	136	130	96		78	77		70-130	50	Q	30
1,2,4-Trimethylbenzene	ND	136	130	93		75	74		70-130	51	Q	30
1,4-Dioxane	ND	6800	10000	151	Q	5300	105		65-136	64	Q	30
p-Diethylbenzene	0.51J	136	130	96		68	67	Q	70-130	62	Q	30

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 05,07 QC Batch ID: WG1196778-11 WG1196778-12 QC Sample: L1900879-07 Client ID: RB15_28-30												
p-Ethyltoluene	ND	136	130	95		74	73		70-130	54	Q	30
1,2,4,5-Tetramethylbenzene	1.2J	136	140	99		83	82		70-130	48	Q	30
Ethyl ether	ND	136	160	120		110	112		67-130	35	Q	30
trans-1,4-Dichloro-2-butene	ND	136	130	98		89	88		70-130	39	Q	30

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
1,2-Dichloroethane-d4	103		95		70-130
4-Bromofluorobenzene	97		98		70-130
Dibromofluoromethane	103		99		70-130
Toluene-d8	97		98		70-130

SEMIVOLATILES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-01 D
 Client ID: RB10_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:30
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/11/19 15:08
 Analyst: EK
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 11:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	270	J	ug/kg	730	95.	5
1,2,4-Trichlorobenzene	ND		ug/kg	920	100	5
Hexachlorobenzene	ND		ug/kg	550	100	5
Bis(2-chloroethyl)ether	ND		ug/kg	820	120	5
2-Chloronaphthalene	ND		ug/kg	920	91.	5
1,2-Dichlorobenzene	ND		ug/kg	920	160	5
1,3-Dichlorobenzene	ND		ug/kg	920	160	5
1,4-Dichlorobenzene	ND		ug/kg	920	160	5
3,3'-Dichlorobenzidine	ND		ug/kg	920	240	5
2,4-Dinitrotoluene	ND		ug/kg	920	180	5
2,6-Dinitrotoluene	ND		ug/kg	920	160	5
Fluoranthene	4300		ug/kg	550	100	5
4-Chlorophenyl phenyl ether	ND		ug/kg	920	98.	5
4-Bromophenyl phenyl ether	ND		ug/kg	920	140	5
Bis(2-chloroisopropyl)ether	ND		ug/kg	1100	160	5
Bis(2-chloroethoxy)methane	ND		ug/kg	990	92.	5
Hexachlorobutadiene	ND		ug/kg	920	130	5
Hexachlorocyclopentadiene	ND		ug/kg	2600	830	5
Hexachloroethane	ND		ug/kg	730	150	5
Isophorone	ND		ug/kg	820	120	5
Naphthalene	ND		ug/kg	920	110	5
Nitrobenzene	ND		ug/kg	820	140	5
NDPA/DPA	ND		ug/kg	730	100	5
n-Nitrosodi-n-propylamine	ND		ug/kg	920	140	5
Bis(2-ethylhexyl)phthalate	ND		ug/kg	920	320	5
Butyl benzyl phthalate	ND		ug/kg	920	230	5
Di-n-butylphthalate	ND		ug/kg	920	170	5
Di-n-octylphthalate	ND		ug/kg	920	310	5

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-01 D

Date Collected: 01/08/19 11:30

Client ID: RB10_0-2

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	920	85.	5
Dimethyl phthalate	ND		ug/kg	920	190	5
Benzo(a)anthracene	2500		ug/kg	550	100	5
Benzo(a)pyrene	2000		ug/kg	730	220	5
Benzo(b)fluoranthene	2800		ug/kg	550	150	5
Benzo(k)fluoranthene	820		ug/kg	550	150	5
Chrysene	2200		ug/kg	550	95.	5
Acenaphthylene	ND		ug/kg	730	140	5
Anthracene	740		ug/kg	550	180	5
Benzo(ghi)perylene	1400		ug/kg	730	110	5
Fluorene	250	J	ug/kg	920	89.	5
Phenanthrene	3200		ug/kg	550	110	5
Dibenzo(a,h)anthracene	300	J	ug/kg	550	100	5
Indeno(1,2,3-cd)pyrene	1300		ug/kg	730	130	5
Pyrene	4700		ug/kg	550	91.	5
Biphenyl	ND		ug/kg	2100	210	5
4-Chloroaniline	ND		ug/kg	920	170	5
2-Nitroaniline	ND		ug/kg	920	180	5
3-Nitroaniline	ND		ug/kg	920	170	5
4-Nitroaniline	ND		ug/kg	920	380	5
Dibenzofuran	120	J	ug/kg	920	86.	5
2-Methylnaphthalene	ND		ug/kg	1100	110	5
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	920	96.	5
Acetophenone	ND		ug/kg	920	110	5
2,4,6-Trichlorophenol	ND		ug/kg	550	170	5
p-Chloro-m-cresol	ND		ug/kg	920	140	5
2-Chlorophenol	ND		ug/kg	920	110	5
2,4-Dichlorophenol	ND		ug/kg	820	150	5
2,4-Dimethylphenol	ND		ug/kg	920	300	5
2-Nitrophenol	ND		ug/kg	2000	340	5
4-Nitrophenol	ND		ug/kg	1300	370	5
2,4-Dinitrophenol	ND		ug/kg	4400	430	5
4,6-Dinitro-o-cresol	ND		ug/kg	2400	440	5
Pentachlorophenol	ND		ug/kg	730	200	5
Phenol	ND		ug/kg	920	140	5
2-Methylphenol	ND		ug/kg	920	140	5
3-Methylphenol/4-Methylphenol	ND		ug/kg	1300	140	5

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-01 D

Date Collected: 01/08/19 11:30

Client ID: RB10_0-2

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	920	180	5
Benzoic Acid	ND		ug/kg	3000	920	5
Benzyl Alcohol	ND		ug/kg	920	280	5
Carbazole	140	J	ug/kg	920	89.	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	36		25-120
Phenol-d6	62		10-120
Nitrobenzene-d5	77		23-120
2-Fluorobiphenyl	83		30-120
2,4,6-Tribromophenol	29		10-136
4-Terphenyl-d14	65		18-120

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-02 D2

Date Collected: 01/08/19 11:35

Client ID: RB10_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Extraction Method: EPA 3546

Analytical Method: 1,8270D

Extraction Date: 01/09/19 11:10

Analytical Date: 01/15/19 02:18

Analyst: JG

Percent Solids: 72%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Fluoranthene	34000		ug/kg	1400	260	10
Phenanthrene	26000		ug/kg	1400	270	10
Pyrene	29000		ug/kg	1400	220	10

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-02 D
 Client ID: RB10_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:35
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/11/19 16:50
 Analyst: EK
 Percent Solids: 72%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 11:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	680		ug/kg	360	47.	2
1,2,4-Trichlorobenzene	ND		ug/kg	450	52.	2
Hexachlorobenzene	ND		ug/kg	270	50.	2
Bis(2-chloroethyl)ether	ND		ug/kg	400	61.	2
2-Chloronaphthalene	ND		ug/kg	450	45.	2
1,2-Dichlorobenzene	ND		ug/kg	450	81.	2
1,3-Dichlorobenzene	ND		ug/kg	450	78.	2
1,4-Dichlorobenzene	ND		ug/kg	450	79.	2
3,3'-Dichlorobenzidine	ND		ug/kg	450	120	2
2,4-Dinitrotoluene	ND		ug/kg	450	90.	2
2,6-Dinitrotoluene	ND		ug/kg	450	77.	2
Fluoranthene	25000	E	ug/kg	270	52.	2
4-Chlorophenyl phenyl ether	ND		ug/kg	450	48.	2
4-Bromophenyl phenyl ether	ND		ug/kg	450	69.	2
Bis(2-chloroisopropyl)ether	ND		ug/kg	540	77.	2
Bis(2-chloroethoxy)methane	ND		ug/kg	490	45.	2
Hexachlorobutadiene	ND		ug/kg	450	66.	2
Hexachlorocyclopentadiene	ND		ug/kg	1300	410	2
Hexachloroethane	ND		ug/kg	360	73.	2
Isophorone	ND		ug/kg	400	58.	2
Naphthalene	1900		ug/kg	450	55.	2
Nitrobenzene	ND		ug/kg	400	67.	2
NDPA/DPA	ND		ug/kg	360	51.	2
n-Nitrosodi-n-propylamine	ND		ug/kg	450	70.	2
Bis(2-ethylhexyl)phthalate	ND		ug/kg	450	160	2
Butyl benzyl phthalate	ND		ug/kg	450	110	2
Di-n-butylphthalate	ND		ug/kg	450	85.	2
Di-n-octylphthalate	ND		ug/kg	450	150	2

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-02 D

Date Collected: 01/08/19 11:35

Client ID: RB10_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	450	42.	2
Dimethyl phthalate	ND		ug/kg	450	95.	2
Benzo(a)anthracene	12000		ug/kg	270	51.	2
Benzo(a)pyrene	11000		ug/kg	360	110	2
Benzo(b)fluoranthene	15000		ug/kg	270	76.	2
Benzo(k)fluoranthene	4500		ug/kg	270	72.	2
Chrysene	9600		ug/kg	270	47.	2
Acenaphthylene	2000		ug/kg	360	70.	2
Anthracene	7100		ug/kg	270	88.	2
Benzo(ghi)perylene	8700		ug/kg	360	53.	2
Fluorene	1900		ug/kg	450	44.	2
Phenanthrene	20000	E	ug/kg	270	55.	2
Dibenzo(a,h)anthracene	1700		ug/kg	270	52.	2
Indeno(1,2,3-cd)pyrene	8200		ug/kg	360	63.	2
Pyrene	21000	E	ug/kg	270	45.	2
Biphenyl	ND		ug/kg	1000	100	2
4-Chloroaniline	ND		ug/kg	450	82.	2
2-Nitroaniline	ND		ug/kg	450	87.	2
3-Nitroaniline	ND		ug/kg	450	85.	2
4-Nitroaniline	ND		ug/kg	450	190	2
Dibenzofuran	540		ug/kg	450	43.	2
2-Methylnaphthalene	1400		ug/kg	540	54.	2
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	450	47.	2
Acetophenone	ND		ug/kg	450	56.	2
2,4,6-Trichlorophenol	ND		ug/kg	270	85.	2
p-Chloro-m-cresol	ND		ug/kg	450	67.	2
2-Chlorophenol	ND		ug/kg	450	53.	2
2,4-Dichlorophenol	ND		ug/kg	400	72.	2
2,4-Dimethylphenol	ND		ug/kg	450	150	2
2-Nitrophenol	ND		ug/kg	970	170	2
4-Nitrophenol	ND		ug/kg	630	180	2
2,4-Dinitrophenol	ND		ug/kg	2200	210	2
4,6-Dinitro-o-cresol	ND		ug/kg	1200	220	2
Pentachlorophenol	ND		ug/kg	360	99.	2
Phenol	160	J	ug/kg	450	68.	2
2-Methylphenol	86	J	ug/kg	450	70.	2
3-Methylphenol/4-Methylphenol	380	J	ug/kg	650	70.	2

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-02 D
 Client ID: RB10_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:35
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	450	86.	2
Benzoic Acid	ND		ug/kg	1500	460	2
Benzyl Alcohol	ND		ug/kg	450	140	2
Carbazole	410	J	ug/kg	450	44.	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		25-120
Phenol-d6	73		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	89		30-120
2,4,6-Tribromophenol	97		10-136
4-Terphenyl-d14	75		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-03
 Client ID: RB10_33-35
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:40
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/11/19 14:23
 Analyst: IM
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 11:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	26.	1
2-Chloronaphthalene	ND		ug/kg	200	19.	1
1,2-Dichlorobenzene	ND		ug/kg	200	35.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	39.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	25.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	49.	1
Di-n-butylphthalate	ND		ug/kg	200	37.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-03

Date Collected: 01/08/19 11:40

Client ID: RB10_33-35

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	41.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	27.	1
Pyrene	ND		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	81.	1
Dibenzofuran	ND		ug/kg	200	18.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	20.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
p-Chloro-m-cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	420	74.	1
4-Nitrophenol	ND		ug/kg	270	80.	1
2,4-Dinitrophenol	ND		ug/kg	940	91.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	94.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-03
Client ID: RB10_33-35
Sample Location: BRONX, NY

Date Collected: 01/08/19 11:40
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	81		25-120
Phenol-d6	76		10-120
Nitrobenzene-d5	71		23-120
2-Fluorobiphenyl	86		30-120
2,4,6-Tribromophenol	87		10-136
4-Terphenyl-d14	83		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-04 D
 Client ID: RB15_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/11/19 17:15
 Analyst: EK
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 11:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	210	J	ug/kg	300	39.	2
1,2,4-Trichlorobenzene	ND		ug/kg	380	43.	2
Hexachlorobenzene	ND		ug/kg	220	42.	2
Bis(2-chloroethyl)ether	ND		ug/kg	340	51.	2
2-Chloronaphthalene	ND		ug/kg	380	37.	2
1,2-Dichlorobenzene	ND		ug/kg	380	67.	2
1,3-Dichlorobenzene	ND		ug/kg	380	65.	2
1,4-Dichlorobenzene	ND		ug/kg	380	66.	2
3,3'-Dichlorobenzidine	ND		ug/kg	380	100	2
2,4-Dinitrotoluene	ND		ug/kg	380	75.	2
2,6-Dinitrotoluene	ND		ug/kg	380	64.	2
Fluoranthene	2200		ug/kg	220	43.	2
4-Chlorophenyl phenyl ether	ND		ug/kg	380	40.	2
4-Bromophenyl phenyl ether	ND		ug/kg	380	57.	2
Bis(2-chloroisopropyl)ether	ND		ug/kg	450	64.	2
Bis(2-chloroethoxy)methane	ND		ug/kg	400	38.	2
Hexachlorobutadiene	ND		ug/kg	380	55.	2
Hexachlorocyclopentadiene	ND		ug/kg	1100	340	2
Hexachloroethane	ND		ug/kg	300	61.	2
Isophorone	ND		ug/kg	340	49.	2
Naphthalene	56	J	ug/kg	380	46.	2
Nitrobenzene	ND		ug/kg	340	56.	2
NDPA/DPA	ND		ug/kg	300	43.	2
n-Nitrosodi-n-propylamine	ND		ug/kg	380	58.	2
Bis(2-ethylhexyl)phthalate	230	J	ug/kg	380	130	2
Butyl benzyl phthalate	ND		ug/kg	380	95.	2
Di-n-butylphthalate	94	J	ug/kg	380	71.	2
Di-n-octylphthalate	ND		ug/kg	380	130	2

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-04 D

Date Collected: 01/08/19 13:00

Client ID: RB15_0-2

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	380	35.	2
Dimethyl phthalate	ND		ug/kg	380	79.	2
Benzo(a)anthracene	940		ug/kg	220	42.	2
Benzo(a)pyrene	800		ug/kg	300	92.	2
Benzo(b)fluoranthene	1100		ug/kg	220	63.	2
Benzo(k)fluoranthene	330		ug/kg	220	60.	2
Chrysene	870		ug/kg	220	39.	2
Acenaphthylene	66	J	ug/kg	300	58.	2
Anthracene	480		ug/kg	220	73.	2
Benzo(ghi)perylene	550		ug/kg	300	44.	2
Fluorene	180	J	ug/kg	380	36.	2
Phenanthrene	1800		ug/kg	220	46.	2
Dibenzo(a,h)anthracene	120	J	ug/kg	220	43.	2
Indeno(1,2,3-cd)pyrene	590		ug/kg	300	52.	2
Pyrene	2000		ug/kg	220	37.	2
Biphenyl	ND		ug/kg	860	87.	2
4-Chloroaniline	ND		ug/kg	380	68.	2
2-Nitroaniline	ND		ug/kg	380	72.	2
3-Nitroaniline	ND		ug/kg	380	71.	2
4-Nitroaniline	ND		ug/kg	380	160	2
Dibenzofuran	100	J	ug/kg	380	36.	2
2-Methylnaphthalene	49	J	ug/kg	450	45.	2
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	380	39.	2
Acetophenone	ND		ug/kg	380	46.	2
2,4,6-Trichlorophenol	ND		ug/kg	220	71.	2
p-Chloro-m-cresol	ND		ug/kg	380	56.	2
2-Chlorophenol	ND		ug/kg	380	44.	2
2,4-Dichlorophenol	ND		ug/kg	340	60.	2
2,4-Dimethylphenol	ND		ug/kg	380	120	2
2-Nitrophenol	ND		ug/kg	810	140	2
4-Nitrophenol	ND		ug/kg	520	150	2
2,4-Dinitrophenol	ND		ug/kg	1800	180	2
4,6-Dinitro-o-cresol	ND		ug/kg	980	180	2
Pentachlorophenol	ND		ug/kg	300	83.	2
Phenol	ND		ug/kg	380	57.	2
2-Methylphenol	ND		ug/kg	380	58.	2
3-Methylphenol/4-Methylphenol	ND		ug/kg	540	59.	2

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-04 D
 Client ID: RB15_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	380	72.	2
Benzoic Acid	ND		ug/kg	1200	380	2
Benzyl Alcohol	ND		ug/kg	380	110	2
Carbazole	120	J	ug/kg	380	36.	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	34		25-120
Phenol-d6	69		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	85		30-120
2,4,6-Tribromophenol	18		10-136
4-Terphenyl-d14	72		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-05
 Client ID: RB15_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:05
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/13/19 20:06
 Analyst: RC
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 11:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	28	J	ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	19.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Bis(2-chloroethyl)ether	ND		ug/kg	150	23.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	30.	1
1,3-Dichlorobenzene	ND		ug/kg	170	29.	1
1,4-Dichlorobenzene	ND		ug/kg	170	30.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	45.	1
2,4-Dinitrotoluene	ND		ug/kg	170	34.	1
2,6-Dinitrotoluene	ND		ug/kg	170	29.	1
Fluoranthene	750		ug/kg	100	19.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	29.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.	1
Hexachlorobutadiene	ND		ug/kg	170	25.	1
Hexachlorocyclopentadiene	ND		ug/kg	480	150	1
Hexachloroethane	ND		ug/kg	140	27.	1
Isophorone	ND		ug/kg	150	22.	1
Naphthalene	39	J	ug/kg	170	21.	1
Nitrobenzene	ND		ug/kg	150	25.	1
NDPA/DPA	ND		ug/kg	140	19.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	26.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	59.	1
Butyl benzyl phthalate	ND		ug/kg	170	43.	1
Di-n-butylphthalate	ND		ug/kg	170	32.	1
Di-n-octylphthalate	ND		ug/kg	170	58.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-05
Client ID: RB15_18-20
Sample Location: BRONX, NY

Date Collected: 01/08/19 13:05
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	36.	1
Benzo(a)anthracene	340		ug/kg	100	19.	1
Benzo(a)pyrene	360		ug/kg	140	41.	1
Benzo(b)fluoranthene	410		ug/kg	100	28.	1
Benzo(k)fluoranthene	140		ug/kg	100	27.	1
Chrysene	290		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	26.	1
Anthracene	110		ug/kg	100	33.	1
Benzo(ghi)perylene	240		ug/kg	140	20.	1
Fluorene	34	J	ug/kg	170	16.	1
Phenanthrene	480		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	46	J	ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	240		ug/kg	140	24.	1
Pyrene	650		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	390	39.	1
4-Chloroaniline	ND		ug/kg	170	31.	1
2-Nitroaniline	ND		ug/kg	170	33.	1
3-Nitroaniline	ND		ug/kg	170	32.	1
4-Nitroaniline	ND		ug/kg	170	70.	1
Dibenzofuran	20	J	ug/kg	170	16.	1
2-Methylnaphthalene	21	J	ug/kg	200	20.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	ND		ug/kg	170	21.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	32.	1
p-Chloro-m-cresol	ND		ug/kg	170	25.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	150	27.	1
2,4-Dimethylphenol	ND		ug/kg	170	56.	1
2-Nitrophenol	ND		ug/kg	370	64.	1
4-Nitrophenol	ND		ug/kg	240	69.	1
2,4-Dinitrophenol	ND		ug/kg	810	79.	1
4,6-Dinitro-o-cresol	ND		ug/kg	440	81.	1
Pentachlorophenol	ND		ug/kg	140	37.	1
Phenol	ND		ug/kg	170	26.	1
2-Methylphenol	ND		ug/kg	170	26.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-05

Date Collected: 01/08/19 13:05

Client ID: RB15_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	32.	1
Benzoic Acid	ND		ug/kg	550	170	1
Benzyl Alcohol	ND		ug/kg	170	52.	1
Carbazole	32	J	ug/kg	170	16.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		25-120
Phenol-d6	71		10-120
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	80		30-120
2,4,6-Tribromophenol	87		10-136
4-Terphenyl-d14	78		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-06
 Client ID: RB15_23-25
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:15
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/11/19 14:48
 Analyst: IM
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 11:10

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	21	J	ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	64	J	ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	1500		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-06

Date Collected: 01/08/19 13:15

Client ID: RB15_23-25

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	24	J	ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	23	J	ug/kg	200	19.	1
Phenanthrene	93	J	ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	52	J	ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	83.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	1400		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	66.	1
2-Nitrophenol	ND		ug/kg	430	75.	1
4-Nitrophenol	ND		ug/kg	280	82.	1
2,4-Dinitrophenol	ND		ug/kg	960	93.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	96.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	31.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-06
 Client ID: RB15_23-25
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:15
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	82		25-120
Phenol-d6	80		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	83		30-120
2,4,6-Tribromophenol	93		10-136
4-Terphenyl-d14	77		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-07
 Client ID: RB15_28-30
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:10
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/11/19 13:32
 Analyst: IM
 Percent Solids: 81%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 11:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	35.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	33.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	70.	1
Butyl benzyl phthalate	ND		ug/kg	200	51.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-07
 Client ID: RB15_28-30
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:10
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	ND		ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	47.	1
4-Chloroaniline	ND		ug/kg	200	37.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	83.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	66.	1
2-Nitrophenol	ND		ug/kg	440	76.	1
4-Nitrophenol	ND		ug/kg	280	82.	1
2,4-Dinitrophenol	ND		ug/kg	970	94.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	97.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	32.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-07
 Client ID: RB15_28-30
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:10
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	39.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	ND		ug/kg	200	20.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	85		25-120
Phenol-d6	82		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	91		30-120
2,4,6-Tribromophenol	90		10-136
4-Terphenyl-d14	75		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-08
 Client ID: RB16_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:40
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/15/19 13:26
 Analyst: JG
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 01/14/19 16:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	48	J	ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	170	20.	1
Hexachlorobenzene	ND		ug/kg	100	19.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	23.	1
2-Chloronaphthalene	ND		ug/kg	170	17.	1
1,2-Dichlorobenzene	ND		ug/kg	170	31.	1
1,3-Dichlorobenzene	ND		ug/kg	170	30.	1
1,4-Dichlorobenzene	ND		ug/kg	170	30.	1
3,3'-Dichlorobenzidine	ND		ug/kg	170	46.	1
2,4-Dinitrotoluene	ND		ug/kg	170	34.	1
2,6-Dinitrotoluene	ND		ug/kg	170	30.	1
Fluoranthene	760		ug/kg	100	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.	1
4-Bromophenyl phenyl ether	ND		ug/kg	170	26.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	30.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	17.	1
Hexachlorobutadiene	ND		ug/kg	170	25.	1
Hexachlorocyclopentadiene	ND		ug/kg	490	160	1
Hexachloroethane	ND		ug/kg	140	28.	1
Isophorone	ND		ug/kg	160	22.	1
Naphthalene	56	J	ug/kg	170	21.	1
Nitrobenzene	ND		ug/kg	160	26.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	170	27.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	60.	1
Butyl benzyl phthalate	ND		ug/kg	170	44.	1
Di-n-butylphthalate	ND		ug/kg	170	33.	1
Di-n-octylphthalate	ND		ug/kg	170	59.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-08

Date Collected: 01/08/19 10:40

Client ID: RB16_0-2

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	170	16.	1
Dimethyl phthalate	ND		ug/kg	170	36.	1
Benzo(a)anthracene	500		ug/kg	100	19.	1
Benzo(a)pyrene	450		ug/kg	140	42.	1
Benzo(b)fluoranthene	600		ug/kg	100	29.	1
Benzo(k)fluoranthene	190		ug/kg	100	28.	1
Chrysene	570		ug/kg	100	18.	1
Acenaphthylene	41	J	ug/kg	140	27.	1
Anthracene	130		ug/kg	100	34.	1
Benzo(ghi)perylene	320		ug/kg	140	20.	1
Fluorene	47	J	ug/kg	170	17.	1
Phenanthrene	660		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	75	J	ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	300		ug/kg	140	24.	1
Pyrene	960		ug/kg	100	17.	1
Biphenyl	ND		ug/kg	390	40.	1
4-Chloroaniline	ND		ug/kg	170	31.	1
2-Nitroaniline	ND		ug/kg	170	33.	1
3-Nitroaniline	ND		ug/kg	170	33.	1
4-Nitroaniline	ND		ug/kg	170	72.	1
Dibenzofuran	24	J	ug/kg	170	16.	1
2-Methylnaphthalene	48	J	ug/kg	210	21.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	18.	1
Acetophenone	21	J	ug/kg	170	21.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	33.	1
p-Chloro-m-cresol	ND		ug/kg	170	26.	1
2-Chlorophenol	ND		ug/kg	170	20.	1
2,4-Dichlorophenol	ND		ug/kg	160	28.	1
2,4-Dimethylphenol	ND		ug/kg	170	57.	1
2-Nitrophenol	ND		ug/kg	370	65.	1
4-Nitrophenol	ND		ug/kg	240	70.	1
2,4-Dinitrophenol	ND		ug/kg	830	80.	1
4,6-Dinitro-o-cresol	ND		ug/kg	450	83.	1
Pentachlorophenol	ND		ug/kg	140	38.	1
Phenol	ND		ug/kg	170	26.	1
2-Methylphenol	ND		ug/kg	170	27.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	27.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-08
 Client ID: RB16_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:40
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	170	33.	1
Benzoic Acid	ND		ug/kg	560	170	1
Benzyl Alcohol	ND		ug/kg	170	53.	1
Carbazole	40	J	ug/kg	170	17.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	36		25-120
Phenol-d6	54		10-120
Nitrobenzene-d5	40		23-120
2-Fluorobiphenyl	65		30-120
2,4,6-Tribromophenol	22		10-136
4-Terphenyl-d14	65		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-09 D
 Client ID: RB16_13-15
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:45
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/11/19 17:41
 Analyst: EK
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 11:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	270	J	ug/kg	290	38.	2
1,2,4-Trichlorobenzene	ND		ug/kg	360	42.	2
Hexachlorobenzene	ND		ug/kg	220	41.	2
Bis(2-chloroethyl)ether	ND		ug/kg	330	50.	2
2-Chloronaphthalene	ND		ug/kg	360	36.	2
1,2-Dichlorobenzene	ND		ug/kg	360	66.	2
1,3-Dichlorobenzene	ND		ug/kg	360	63.	2
1,4-Dichlorobenzene	ND		ug/kg	360	64.	2
3,3'-Dichlorobenzidine	ND		ug/kg	360	97.	2
2,4-Dinitrotoluene	ND		ug/kg	360	73.	2
2,6-Dinitrotoluene	ND		ug/kg	360	63.	2
Fluoranthene	2800		ug/kg	220	42.	2
4-Chlorophenyl phenyl ether	ND		ug/kg	360	39.	2
4-Bromophenyl phenyl ether	ND		ug/kg	360	56.	2
Bis(2-chloroisopropyl)ether	ND		ug/kg	440	62.	2
Bis(2-chloroethoxy)methane	ND		ug/kg	390	37.	2
Hexachlorobutadiene	ND		ug/kg	360	54.	2
Hexachlorocyclopentadiene	ND		ug/kg	1000	330	2
Hexachloroethane	ND		ug/kg	290	59.	2
Isophorone	ND		ug/kg	330	47.	2
Naphthalene	760		ug/kg	360	44.	2
Nitrobenzene	ND		ug/kg	330	54.	2
NDPA/DPA	ND		ug/kg	290	42.	2
n-Nitrosodi-n-propylamine	ND		ug/kg	360	56.	2
Bis(2-ethylhexyl)phthalate	ND		ug/kg	360	130	2
Butyl benzyl phthalate	ND		ug/kg	360	92.	2
Di-n-butylphthalate	ND		ug/kg	360	69.	2
Di-n-octylphthalate	ND		ug/kg	360	120	2

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-09 D

Date Collected: 01/08/19 10:45

Client ID: RB16_13-15

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	360	34.	2
Dimethyl phthalate	ND		ug/kg	360	77.	2
Benzo(a)anthracene	1300		ug/kg	220	41.	2
Benzo(a)pyrene	1300		ug/kg	290	89.	2
Benzo(b)fluoranthene	1600		ug/kg	220	62.	2
Benzo(k)fluoranthene	490		ug/kg	220	58.	2
Chrysene	1200		ug/kg	220	38.	2
Acenaphthylene	120	J	ug/kg	290	56.	2
Anthracene	600		ug/kg	220	71.	2
Benzo(ghi)perylene	820		ug/kg	290	43.	2
Fluorene	200	J	ug/kg	360	36.	2
Phenanthrene	2300		ug/kg	220	44.	2
Dibenzo(a,h)anthracene	190	J	ug/kg	220	42.	2
Indeno(1,2,3-cd)pyrene	870		ug/kg	290	51.	2
Pyrene	2800		ug/kg	220	36.	2
Biphenyl	ND		ug/kg	830	85.	2
4-Chloroaniline	ND		ug/kg	360	66.	2
2-Nitroaniline	ND		ug/kg	360	70.	2
3-Nitroaniline	ND		ug/kg	360	69.	2
4-Nitroaniline	ND		ug/kg	360	150	2
Dibenzofuran	160	J	ug/kg	360	34.	2
2-Methylnaphthalene	140	J	ug/kg	440	44.	2
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	360	38.	2
Acetophenone	ND		ug/kg	360	45.	2
2,4,6-Trichlorophenol	ND		ug/kg	220	69.	2
p-Chloro-m-cresol	ND		ug/kg	360	54.	2
2-Chlorophenol	ND		ug/kg	360	43.	2
2,4-Dichlorophenol	ND		ug/kg	330	59.	2
2,4-Dimethylphenol	ND		ug/kg	360	120	2
2-Nitrophenol	ND		ug/kg	790	140	2
4-Nitrophenol	ND		ug/kg	510	150	2
2,4-Dinitrophenol	ND		ug/kg	1800	170	2
4,6-Dinitro-o-cresol	ND		ug/kg	950	180	2
Pentachlorophenol	ND		ug/kg	290	80.	2
Phenol	ND		ug/kg	360	55.	2
2-Methylphenol	ND		ug/kg	360	57.	2
3-Methylphenol/4-Methylphenol	ND		ug/kg	530	57.	2

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-09 D

Date Collected: 01/08/19 10:45

Client ID: RB16_13-15

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	360	70.	2
Benzoic Acid	ND		ug/kg	1200	370	2
Benzyl Alcohol	ND		ug/kg	360	110	2
Carbazole	140	J	ug/kg	360	36.	2

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	78		25-120
Phenol-d6	81		10-120
Nitrobenzene-d5	83		23-120
2-Fluorobiphenyl	94		30-120
2,4,6-Tribromophenol	95		10-136
4-Terphenyl-d14	67		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-10
 Client ID: RB16_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:50
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/11/19 22:07
 Analyst: EK
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 11:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	35.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	39.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	210		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	500		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	68.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	37.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-10

Date Collected: 01/08/19 10:50

Client ID: RB16_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	41.	1
Benzo(a)anthracene	130		ug/kg	120	22.	1
Benzo(a)pyrene	110	J	ug/kg	160	48.	1
Benzo(b)fluoranthene	140		ug/kg	120	33.	1
Benzo(k)fluoranthene	36	J	ug/kg	120	31.	1
Chrysene	120		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	160	30.	1
Anthracene	44	J	ug/kg	120	38.	1
Benzo(ghi)perylene	70	J	ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	190		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	78	J	ug/kg	160	27.	1
Pyrene	190		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	81.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	33	J	ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	20.	1
Acetophenone	210		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
p-Chloro-m-cresol	ND		ug/kg	200	29.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	65.	1
2-Nitrophenol	ND		ug/kg	420	74.	1
4-Nitrophenol	ND		ug/kg	280	80.	1
2,4-Dinitrophenol	ND		ug/kg	940	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	94.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-10

Date Collected: 01/08/19 10:50

Client ID: RB16_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	90		25-120
Phenol-d6	88		10-120
Nitrobenzene-d5	86		23-120
2-Fluorobiphenyl	95		30-120
2,4,6-Tribromophenol	117		10-136
4-Terphenyl-d14	67		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-11
 Client ID: SODUP05_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 01/11/19 13:57
 Analyst: IM
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 11:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	30.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	68	J	ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	29.	1
NDPA/DPA	ND		ug/kg	160	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	69.	1
Butyl benzyl phthalate	ND		ug/kg	200	50.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	67.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-11
 Client ID: SODUP05_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	18.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	33.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	23.	1
Fluorene	ND		ug/kg	200	19.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	450	46.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	38.	1
3-Nitroaniline	ND		ug/kg	200	37.	1
4-Nitroaniline	ND		ug/kg	200	82.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	100	J	ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	23.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	66.	1
2-Nitrophenol	ND		ug/kg	430	75.	1
4-Nitrophenol	ND		ug/kg	280	81.	1
2,4-Dinitrophenol	ND		ug/kg	950	92.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	95.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	31.	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-11
 Client ID: SODUP05_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	19.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	75		25-120
Phenol-d6	72		10-120
Nitrobenzene-d5	64		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	78		10-136
4-Terphenyl-d14	60		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-12
Client ID: SOFB04_010819
Sample Location: BRONX, NY

Date Collected: 01/08/19 10:00
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 01/14/19 20:48
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 01/09/19 07:54

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/l	2.0	0.44	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50	1
Hexachlorobenzene	ND		ug/l	2.0	0.46	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50	1
2-Chloronaphthalene	ND		ug/l	2.0	0.44	1
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45	1
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40	1
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6	1
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2	1
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93	1
Fluoranthene	ND		ug/l	2.0	0.26	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50	1
Hexachlorobutadiene	ND		ug/l	2.0	0.66	1
Hexachlorocyclopentadiene	ND		ug/l	20	0.69	1
Hexachloroethane	ND		ug/l	2.0	0.58	1
Isophorone	ND		ug/l	5.0	1.2	1
Naphthalene	ND		ug/l	2.0	0.46	1
Nitrobenzene	ND		ug/l	2.0	0.77	1
NDPA/DPA	ND		ug/l	2.0	0.42	1
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5	1
Butyl benzyl phthalate	ND		ug/l	5.0	1.2	1
Di-n-butylphthalate	ND		ug/l	5.0	0.39	1
Di-n-octylphthalate	ND		ug/l	5.0	1.3	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-12
 Client ID: SOFB04_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/l	5.0	0.38	1
Dimethyl phthalate	ND		ug/l	5.0	1.8	1
Benzo(a)anthracene	ND		ug/l	2.0	0.32	1
Benzo(a)pyrene	ND		ug/l	2.0	0.41	1
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35	1
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37	1
Chrysene	ND		ug/l	2.0	0.34	1
Acenaphthylene	ND		ug/l	2.0	0.46	1
Anthracene	ND		ug/l	2.0	0.33	1
Benzo(ghi)perylene	ND		ug/l	2.0	0.30	1
Fluorene	ND		ug/l	2.0	0.41	1
Phenanthrene	ND		ug/l	2.0	0.33	1
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40	1
Pyrene	ND		ug/l	2.0	0.28	1
Biphenyl	ND		ug/l	2.0	0.46	1
4-Chloroaniline	ND		ug/l	5.0	1.1	1
2-Nitroaniline	ND		ug/l	5.0	0.50	1
3-Nitroaniline	ND		ug/l	5.0	0.81	1
4-Nitroaniline	ND		ug/l	5.0	0.80	1
Dibenzofuran	ND		ug/l	2.0	0.50	1
2-Methylnaphthalene	ND		ug/l	2.0	0.45	1
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44	1
Acetophenone	ND		ug/l	5.0	0.53	1
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61	1
p-Chloro-m-cresol	ND		ug/l	2.0	0.35	1
2-Chlorophenol	ND		ug/l	2.0	0.48	1
2,4-Dichlorophenol	ND		ug/l	5.0	0.41	1
2,4-Dimethylphenol	ND		ug/l	5.0	1.8	1
2-Nitrophenol	ND		ug/l	10	0.85	1
4-Nitrophenol	ND		ug/l	10	0.67	1
2,4-Dinitrophenol	ND		ug/l	20	6.6	1
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8	1
Pentachlorophenol	ND		ug/l	10	1.8	1
Phenol	ND		ug/l	5.0	0.57	1
2-Methylphenol	ND		ug/l	5.0	0.49	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48	1

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-12
 Client ID: SOFB04_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77	1
Benzoic Acid	ND		ug/l	50	2.6	1
Benzyl Alcohol	ND		ug/l	2.0	0.59	1
Carbazole	ND		ug/l	2.0	0.49	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	42		21-120
Phenol-d6	46		10-120
Nitrobenzene-d5	70		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	24		10-120
4-Terphenyl-d14	64		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/09/19 16:51
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 01/08/19 10:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 12 Batch: WG1195687-1					
Acenaphthene	ND		ug/l	2.0	0.44
1,2,4-Trichlorobenzene	ND		ug/l	5.0	0.50
Hexachlorobenzene	ND		ug/l	2.0	0.46
Bis(2-chloroethyl)ether	ND		ug/l	2.0	0.50
2-Chloronaphthalene	ND		ug/l	2.0	0.44
1,2-Dichlorobenzene	ND		ug/l	2.0	0.45
1,3-Dichlorobenzene	ND		ug/l	2.0	0.40
1,4-Dichlorobenzene	ND		ug/l	2.0	0.43
3,3'-Dichlorobenzidine	ND		ug/l	5.0	1.6
2,4-Dinitrotoluene	ND		ug/l	5.0	1.2
2,6-Dinitrotoluene	ND		ug/l	5.0	0.93
Fluoranthene	ND		ug/l	2.0	0.26
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	0.49
4-Bromophenyl phenyl ether	ND		ug/l	2.0	0.38
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	0.53
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	0.50
Hexachlorobutadiene	ND		ug/l	2.0	0.66
Hexachlorocyclopentadiene	ND		ug/l	20	0.69
Hexachloroethane	ND		ug/l	2.0	0.58
Isophorone	ND		ug/l	5.0	1.2
Naphthalene	ND		ug/l	2.0	0.46
Nitrobenzene	ND		ug/l	2.0	0.77
NDPA/DPA	ND		ug/l	2.0	0.42
n-Nitrosodi-n-propylamine	ND		ug/l	5.0	0.64
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.5
Butyl benzyl phthalate	ND		ug/l	5.0	1.2
Di-n-butylphthalate	ND		ug/l	5.0	0.39
Di-n-octylphthalate	ND		ug/l	5.0	1.3
Diethyl phthalate	ND		ug/l	5.0	0.38

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/09/19 16:51
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 01/08/19 10:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 12 Batch: WG1195687-1					
Dimethyl phthalate	ND		ug/l	5.0	1.8
Benzo(a)anthracene	ND		ug/l	2.0	0.32
Benzo(a)pyrene	ND		ug/l	2.0	0.41
Benzo(b)fluoranthene	ND		ug/l	2.0	0.35
Benzo(k)fluoranthene	ND		ug/l	2.0	0.37
Chrysene	ND		ug/l	2.0	0.34
Acenaphthylene	ND		ug/l	2.0	0.46
Anthracene	ND		ug/l	2.0	0.33
Benzo(ghi)perylene	ND		ug/l	2.0	0.30
Fluorene	ND		ug/l	2.0	0.41
Phenanthrene	ND		ug/l	2.0	0.33
Dibenzo(a,h)anthracene	ND		ug/l	2.0	0.32
Indeno(1,2,3-cd)pyrene	ND		ug/l	2.0	0.40
Pyrene	ND		ug/l	2.0	0.28
Biphenyl	ND		ug/l	2.0	0.46
4-Chloroaniline	ND		ug/l	5.0	1.1
2-Nitroaniline	ND		ug/l	5.0	0.50
3-Nitroaniline	ND		ug/l	5.0	0.81
4-Nitroaniline	ND		ug/l	5.0	0.80
Dibenzofuran	ND		ug/l	2.0	0.50
2-Methylnaphthalene	ND		ug/l	2.0	0.45
1,2,4,5-Tetrachlorobenzene	ND		ug/l	10	0.44
Acetophenone	ND		ug/l	5.0	0.53
2,4,6-Trichlorophenol	ND		ug/l	5.0	0.61
p-Chloro-m-cresol	ND		ug/l	2.0	0.35
2-Chlorophenol	ND		ug/l	2.0	0.48
2,4-Dichlorophenol	ND		ug/l	5.0	0.41
2,4-Dimethylphenol	ND		ug/l	5.0	1.8
2-Nitrophenol	ND		ug/l	10	0.85

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 01/09/19 16:51
Analyst: SZ

Extraction Method: EPA 3510C
Extraction Date: 01/08/19 10:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 12 Batch: WG1195687-1					
4-Nitrophenol	ND		ug/l	10	0.67
2,4-Dinitrophenol	ND		ug/l	20	6.6
4,6-Dinitro-o-cresol	ND		ug/l	10	1.8
Pentachlorophenol	ND		ug/l	10	1.8
Phenol	ND		ug/l	5.0	0.57
2-Methylphenol	ND		ug/l	5.0	0.49
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	0.48
2,4,5-Trichlorophenol	ND		ug/l	5.0	0.77
Benzoic Acid	ND		ug/l	50	2.6
Benzyl Alcohol	ND		ug/l	2.0	0.59
Carbazole	ND		ug/l	2.0	0.49

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		21-120
Phenol-d6	52		10-120
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	82		15-120
2,4,6-Tribromophenol	71		10-120
4-Terphenyl-d14	79		41-149

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/10/19 13:45
Analyst: SZ

Extraction Method: EPA 3546
Extraction Date: 01/09/19 11:10

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-07,09-11 Batch: WG1196039-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	98	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	29.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	28.
3,3'-Dichlorobenzidine	ND		ug/kg	160	43.
2,4-Dinitrotoluene	ND		ug/kg	160	32.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	98	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	17.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	26.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	18.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	56.
Butyl benzyl phthalate	ND		ug/kg	160	41.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	55.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/10/19 13:45
Analyst: SZ

Extraction Method: EPA 3546
Extraction Date: 01/09/19 11:10

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-07,09-11 Batch: WG1196039-1					
Dimethyl phthalate	ND		ug/kg	160	34.
Benzo(a)anthracene	ND		ug/kg	98	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	98	27.
Benzo(k)fluoranthene	ND		ug/kg	98	26.
Chrysene	ND		ug/kg	98	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	98	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	98	20.
Dibenzo(a,h)anthracene	ND		ug/kg	98	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	98	16.
Biphenyl	ND		ug/kg	370	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	31.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	67.
Dibenzofuran	ND		ug/kg	160	15.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	98	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	350	61.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/10/19 13:45
Analyst: SZ

Extraction Method: EPA 3546
Extraction Date: 01/09/19 11:10

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-07,09-11 Batch: WG1196039-1					
4-Nitrophenol	ND		ug/kg	230	66.
2,4-Dinitrophenol	ND		ug/kg	780	76.
4,6-Dinitro-o-cresol	ND		ug/kg	420	78.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	25.
3-Methylphenol/4-Methylphenol	ND		ug/kg	230	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	31.
Benzoic Acid	ND		ug/kg	530	160
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	78		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	70		30-120
2,4,6-Tribromophenol	93		10-136
4-Terphenyl-d14	82		18-120

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/15/19 09:27
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 01/14/19 04:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 08 Batch: WG1197293-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	160	19.
Hexachlorobenzene	ND		ug/kg	99	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	160	16.
1,2-Dichlorobenzene	ND		ug/kg	160	30.
1,3-Dichlorobenzene	ND		ug/kg	160	28.
1,4-Dichlorobenzene	ND		ug/kg	160	29.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	33.
2,6-Dinitrotoluene	ND		ug/kg	160	28.
Fluoranthene	ND		ug/kg	99	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	18.
4-Bromophenyl phenyl ether	ND		ug/kg	160	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	16.
Hexachlorobutadiene	ND		ug/kg	160	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	21.
Naphthalene	ND		ug/kg	160	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	25.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	160	57.
Butyl benzyl phthalate	ND		ug/kg	160	42.
Di-n-butylphthalate	ND		ug/kg	160	31.
Di-n-octylphthalate	ND		ug/kg	160	56.
Diethyl phthalate	ND		ug/kg	160	15.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 01/15/19 09:27
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 01/14/19 04:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 08 Batch: WG1197293-1					
Dimethyl phthalate	ND		ug/kg	160	35.
Benzo(a)anthracene	ND		ug/kg	99	18.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	28.
Benzo(k)fluoranthene	ND		ug/kg	99	26.
Chrysene	ND		ug/kg	99	17.
Acenaphthylene	ND		ug/kg	130	25.
Anthracene	ND		ug/kg	99	32.
Benzo(ghi)perylene	ND		ug/kg	130	19.
Fluorene	ND		ug/kg	160	16.
Phenanthrene	ND		ug/kg	99	20.
Dibenzo(a,h)anthracene	ND		ug/kg	99	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	99	16.
Biphenyl	ND		ug/kg	380	38.
4-Chloroaniline	ND		ug/kg	160	30.
2-Nitroaniline	ND		ug/kg	160	32.
3-Nitroaniline	ND		ug/kg	160	31.
4-Nitroaniline	ND		ug/kg	160	68.
Dibenzofuran	ND		ug/kg	160	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	17.
Acetophenone	ND		ug/kg	160	20.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
p-Chloro-m-cresol	ND		ug/kg	160	24.
2-Chlorophenol	ND		ug/kg	160	19.
2,4-Dichlorophenol	ND		ug/kg	150	26.
2,4-Dimethylphenol	ND		ug/kg	160	54.
2-Nitrophenol	ND		ug/kg	360	62.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 01/15/19 09:27
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 01/14/19 04:49

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 08 Batch: WG1197293-1					
4-Nitrophenol	ND		ug/kg	230	67.
2,4-Dinitrophenol	ND		ug/kg	790	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	79.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	160	25.
2-Methylphenol	ND		ug/kg	160	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	160	32.
Benzoic Acid	ND		ug/kg	530	170
Benzyl Alcohol	ND		ug/kg	160	50.
Carbazole	ND		ug/kg	160	16.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	65		25-120
Phenol-d6	66		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	75		10-136
4-Terphenyl-d14	73		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 12 Batch: WG1195687-2 WG1195687-3								
Acenaphthene	65		71		37-111	9		30
1,2,4-Trichlorobenzene	61		70		39-98	14		30
Hexachlorobenzene	72		75		40-140	4		30
Bis(2-chloroethyl)ether	56		73		40-140	26		30
2-Chloronaphthalene	67		79		40-140	16		30
1,2-Dichlorobenzene	57		70		40-140	20		30
1,3-Dichlorobenzene	54		69		40-140	24		30
1,4-Dichlorobenzene	53		68		36-97	25		30
3,3'-Dichlorobenzidine	74		83		40-140	11		30
2,4-Dinitrotoluene	75		78		48-143	4		30
2,6-Dinitrotoluene	84		83		40-140	1		30
Fluoranthene	77		82		40-140	6		30
4-Chlorophenyl phenyl ether	72		70		40-140	3		30
4-Bromophenyl phenyl ether	74		82		40-140	10		30
Bis(2-chloroisopropyl)ether	61		76		40-140	22		30
Bis(2-chloroethoxy)methane	72		79		40-140	9		30
Hexachlorobutadiene	50		70		40-140	33	Q	30
Hexachlorocyclopentadiene	53		71		40-140	29		30
Hexachloroethane	56		67		40-140	18		30
Isophorone	70		84		40-140	18		30
Naphthalene	58		74		40-140	24		30
Nitrobenzene	62		73		40-140	16		30
NDPA/DPA	78		75		40-140	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 12 Batch: WG1195687-2 WG1195687-3								
n-Nitrosodi-n-propylamine	68		82		29-132	19		30
Bis(2-ethylhexyl)phthalate	88		99		40-140	12		30
Butyl benzyl phthalate	99		105		40-140	6		30
Di-n-butylphthalate	79		83		40-140	5		30
Di-n-octylphthalate	99		100		40-140	1		30
Diethyl phthalate	79		76		40-140	4		30
Dimethyl phthalate	83		81		40-140	2		30
Benzo(a)anthracene	81		88		40-140	8		30
Benzo(a)pyrene	84		86		40-140	2		30
Benzo(b)fluoranthene	84		87		40-140	4		30
Benzo(k)fluoranthene	87		93		40-140	7		30
Chrysene	79		84		40-140	6		30
Acenaphthylene	73		77		45-123	5		30
Anthracene	76		85		40-140	11		30
Benzo(ghi)perylene	80		100		40-140	22		30
Fluorene	73		70		40-140	4		30
Phenanthrene	76		80		40-140	5		30
Dibenzo(a,h)anthracene	80		95		40-140	17		30
Indeno(1,2,3-cd)pyrene	78		91		40-140	15		30
Pyrene	75		82		26-127	9		30
Biphenyl	64		75		40-140	16		30
4-Chloroaniline	60		72		40-140	18		30
2-Nitroaniline	84		88		52-143	5		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 12 Batch: WG1195687-2 WG1195687-3								
3-Nitroaniline	70		79		25-145	12		30
4-Nitroaniline	79		71		51-143	11		30
Dibenzofuran	70		74		40-140	6		30
2-Methylnaphthalene	62		79		40-140	24		30
1,2,4,5-Tetrachlorobenzene	59		72		2-134	20		30
Acetophenone	63		78		39-129	21		30
2,4,6-Trichlorophenol	78		88		30-130	12		30
p-Chloro-m-cresol	83		90		23-97	8		30
2-Chlorophenol	61		77		27-123	23		30
2,4-Dichlorophenol	80		81		30-130	1		30
2,4-Dimethylphenol	48		58		30-130	19		30
2-Nitrophenol	67		83		30-130	21		30
4-Nitrophenol	73		74		10-80	1		30
2,4-Dinitrophenol	80		82		20-130	2		30
4,6-Dinitro-o-cresol	77		76		20-164	1		30
Pentachlorophenol	80		81		9-103	1		30
Phenol	52		63		12-110	19		30
2-Methylphenol	66		78		30-130	17		30
3-Methylphenol/4-Methylphenol	75		85		30-130	13		30
2,4,5-Trichlorophenol	82		86		30-130	5		30
Benzoic Acid	66		64		10-164	3		30
Benzyl Alcohol	68		76		26-116	11		30
Carbazole	84		89		55-144	6		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 12 Batch: WG1195687-2 WG1195687-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	62		68		21-120
Phenol-d6	52		61		10-120
Nitrobenzene-d5	61		75		23-120
2-Fluorobiphenyl	69		79		15-120
2,4,6-Tribromophenol	83		76		10-120
4-Terphenyl-d14	70		73		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09-11 Batch: WG1196039-2 WG1196039-3								
Acenaphthene	92		97		31-137	5		50
1,2,4-Trichlorobenzene	77		95		38-107	21		50
Hexachlorobenzene	94		100		40-140	6		50
Bis(2-chloroethyl)ether	77		79		40-140	3		50
2-Chloronaphthalene	77		86		40-140	11		50
1,2-Dichlorobenzene	72		77		40-140	7		50
1,3-Dichlorobenzene	72		76		40-140	5		50
1,4-Dichlorobenzene	72		77		28-104	7		50
3,3'-Dichlorobenzidine	52		53		40-140	2		50
2,4-Dinitrotoluene	109		116		40-132	6		50
2,6-Dinitrotoluene	105		94		40-140	11		50
Fluoranthene	83		107		40-140	25		50
4-Chlorophenyl phenyl ether	78		94		40-140	19		50
4-Bromophenyl phenyl ether	95		101		40-140	6		50
Bis(2-chloroisopropyl)ether	72		88		40-140	20		50
Bis(2-chloroethoxy)methane	81		102		40-117	23		50
Hexachlorobutadiene	74		78		40-140	5		50
Hexachlorocyclopentadiene	78		80		40-140	3		50
Hexachloroethane	75		94		40-140	22		50
Isophorone	85		107		40-140	23		50
Naphthalene	77		82		40-140	6		50
Nitrobenzene	79		101		40-140	24		50
NDPA/DPA	90		103		36-157	13		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09-11 Batch: WG1196039-2 WG1196039-3								
n-Nitrosodi-n-propylamine	82		104		32-121	24		50
Bis(2-ethylhexyl)phthalate	93		100		40-140	7		50
Butyl benzyl phthalate	106		110		40-140	4		50
Di-n-butylphthalate	98		122		40-140	22		50
Di-n-octylphthalate	90		103		40-140	13		50
Diethyl phthalate	93		105		40-140	12		50
Dimethyl phthalate	97		87		40-140	11		50
Benzo(a)anthracene	83		86		40-140	4		50
Benzo(a)pyrene	77		113		40-140	38		50
Benzo(b)fluoranthene	80		110		40-140	32		50
Benzo(k)fluoranthene	75		110		40-140	38		50
Chrysene	85		86		40-140	1		50
Acenaphthylene	95		86		40-140	10		50
Anthracene	89		91		40-140	2		50
Benzo(ghi)perylene	88		90		40-140	2		50
Fluorene	86		104		40-140	19		50
Phenanthrene	85		88		40-140	3		50
Dibenzo(a,h)anthracene	100		88		40-140	13		50
Indeno(1,2,3-cd)pyrene	101		89		40-140	13		50
Pyrene	86		105		35-142	20		50
Biphenyl	81		90		54-104	11		50
4-Chloroaniline	44		44		40-140	0		50
2-Nitroaniline	86		96		47-134	11		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09-11 Batch: WG1196039-2 WG1196039-3								
3-Nitroaniline	71		71		26-129	0		50
4-Nitroaniline	90		106		41-125	16		50
Dibenzofuran	90		96		40-140	6		50
2-Methylnaphthalene	81		86		40-140	6		50
1,2,4,5-Tetrachlorobenzene	83		86		40-117	4		50
Acetophenone	85		107		14-144	23		50
2,4,6-Trichlorophenol	91		94		30-130	3		50
p-Chloro-m-cresol	92		94		26-103	2		50
2-Chlorophenol	84		88		25-102	5		50
2,4-Dichlorophenol	88		108		30-130	20		50
2,4-Dimethylphenol	90		110		30-130	20		50
2-Nitrophenol	88		108		30-130	20		50
4-Nitrophenol	106		110		11-114	4		50
2,4-Dinitrophenol	109		113		4-130	4		50
4,6-Dinitro-o-cresol	106		117		10-130	10		50
Pentachlorophenol	91		96		17-109	5		50
Phenol	80		84		26-90	5		50
2-Methylphenol	84		99		30-130.	16		50
3-Methylphenol/4-Methylphenol	84		106		30-130	23		50
2,4,5-Trichlorophenol	92		93		30-130	1		50
Benzoic Acid	87		97		10-110	11		50
Benzyl Alcohol	88		93		40-140	6		50
Carbazole	90		97		54-128	7		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09-11 Batch: WG1196039-2 WG1196039-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	85		91		25-120
Phenol-d6	86		91		10-120
Nitrobenzene-d5	81		104		23-120
2-Fluorobiphenyl	82		86		30-120
2,4,6-Tribromophenol	102		113		10-136
4-Terphenyl-d14	72		91		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 08 Batch: WG1197293-2 WG1197293-3								
Acenaphthene	64		64		31-137	0		50
1,2,4-Trichlorobenzene	72		72		38-107	0		50
Hexachlorobenzene	78		75		40-140	4		50
Bis(2-chloroethyl)ether	68		67		40-140	1		50
2-Chloronaphthalene	81		79		40-140	3		50
1,2-Dichlorobenzene	69		66		40-140	4		50
1,3-Dichlorobenzene	67		66		40-140	2		50
1,4-Dichlorobenzene	68		65		28-104	5		50
3,3'-Dichlorobenzidine	47		48		40-140	2		50
2,4-Dinitrotoluene	71		68		40-132	4		50
2,6-Dinitrotoluene	87		83		40-140	5		50
Fluoranthene	80		76		40-140	5		50
4-Chlorophenyl phenyl ether	68		66		40-140	3		50
4-Bromophenyl phenyl ether	74		72		40-140	3		50
Bis(2-chloroisopropyl)ether	67		67		40-140	0		50
Bis(2-chloroethoxy)methane	75		73		40-117	3		50
Hexachlorobutadiene	75		75		40-140	0		50
Hexachlorocyclopentadiene	69		68		40-140	1		50
Hexachloroethane	66		65		40-140	2		50
Isophorone	78		74		40-140	5		50
Naphthalene	71		72		40-140	1		50
Nitrobenzene	71		70		40-140	1		50
NDPA/DPA	70		68		36-157	3		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 08 Batch: WG1197293-2 WG1197293-3								
n-Nitrosodi-n-propylamine	75		73		32-121	3		50
Bis(2-ethylhexyl)phthalate	77		74		40-140	4		50
Butyl benzyl phthalate	83		78		40-140	6		50
Di-n-butylphthalate	83		79		40-140	5		50
Di-n-octylphthalate	78		74		40-140	5		50
Diethyl phthalate	70		67		40-140	4		50
Dimethyl phthalate	89		83		40-140	7		50
Benzo(a)anthracene	73		69		40-140	6		50
Benzo(a)pyrene	76		73		40-140	4		50
Benzo(b)fluoranthene	75		73		40-140	3		50
Benzo(k)fluoranthene	78		73		40-140	7		50
Chrysene	73		69		40-140	6		50
Acenaphthylene	85		82		40-140	4		50
Anthracene	78		73		40-140	7		50
Benzo(ghi)perylene	76		73		40-140	4		50
Fluorene	70		68		40-140	3		50
Phenanthrene	73		69		40-140	6		50
Dibenzo(a,h)anthracene	75		72		40-140	4		50
Indeno(1,2,3-cd)pyrene	76		73		40-140	4		50
Pyrene	80		76		35-142	5		50
Biphenyl	82		80		54-104	2		50
4-Chloroaniline	45		46		40-140	2		50
2-Nitroaniline	89		83		47-134	7		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	RPD	
	%Recovery	Qual	%Recovery	Qual			Qual	Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 08 Batch: WG1197293-2 WG1197293-3								
3-Nitroaniline	44		43		26-129	2		50
4-Nitroaniline	62		57		41-125	8		50
Dibenzofuran	68		66		40-140	3		50
2-Methylnaphthalene	76		76		40-140	0		50
1,2,4,5-Tetrachlorobenzene	82		82		40-117	0		50
Acetophenone	73		72		14-144	1		50
2,4,6-Trichlorophenol	91		87		30-130	4		50
p-Chloro-m-cresol	89		86		26-103	3		50
2-Chlorophenol	77		75		25-102	3		50
2,4-Dichlorophenol	86		84		30-130	2		50
2,4-Dimethylphenol	87		83		30-130	5		50
2-Nitrophenol	78		76		30-130	3		50
4-Nitrophenol	83		79		11-114	5		50
2,4-Dinitrophenol	69		67		4-130	3		50
4,6-Dinitro-o-cresol	74		69		10-130	7		50
Pentachlorophenol	78		73		17-109	7		50
Phenol	74		72		26-90	3		50
2-Methylphenol	78		78		30-130.	0		50
3-Methylphenol/4-Methylphenol	80		82		30-130	2		50
2,4,5-Trichlorophenol	95		89		30-130	7		50
Benzoic Acid	84		80		10-110	5		50
Benzyl Alcohol	81		79		40-140	3		50
Carbazole	78		74		54-128	5		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 08 Batch: WG1197293-2 WG1197293-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria
2-Fluorophenol	74		72		25-120
Phenol-d6	78		77		10-120
Nitrobenzene-d5	74		73		23-120
2-Fluorobiphenyl	84		81		30-120
2,4,6-Tribromophenol	85		80		10-136
4-Terphenyl-d14	82		78		18-120

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09-11 QC Batch ID: WG1196039-4 WG1196039-5 QC Sample: L1900879-03 Client ID: RB10_33-35												
Acenaphthene	ND	1570	1200	76		1400	89		31-137	15		50
1,2,4-Trichlorobenzene	ND	1570	1200	76		1400	89		38-107	15		50
Hexachlorobenzene	ND	1570	1200	76		1400	89		40-140	15		50
Bis(2-chloroethyl)ether	ND	1570	960	61		1100	70		40-140	14		50
2-Chloronaphthalene	ND	1570	1200	76		1400	89		40-140	15		50
1,2-Dichlorobenzene	ND	1570	1100	70		1300	83		40-140	17		50
1,3-Dichlorobenzene	ND	1570	1100	70		1300	83		40-140	17		50
1,4-Dichlorobenzene	ND	1570	1100	70		1300	83		28-104	17		50
3,3'-Dichlorobenzidine	ND	1570	920	59		1000	64		40-140	8		50
2,4-Dinitrotoluene	ND	1570	1300	83		1500	96		40-132	14		50
2,6-Dinitrotoluene	ND	1570	1300	83		1500	96		40-140	14		50
Fluoranthene	ND	1570	1200	76		1500	96		40-140	22		50
4-Chlorophenyl phenyl ether	ND	1570	1200	76		1400	89		40-140	15		50
4-Bromophenyl phenyl ether	ND	1570	1300	83		1400	89		40-140	7		50
Bis(2-chloroisopropyl)ether	ND	1570	1100	70		1200	77		40-140	9		50
Bis(2-chloroethoxy)methane	ND	1570	1000	64		1200	77		40-117	18		50
Hexachlorobutadiene	ND	1570	1200	76		1400	89		40-140	15		50
Hexachlorocyclopentadiene	ND	1570	960	61		1100	70		40-140	14		50
Hexachloroethane	ND	1570	1100	70		1200	77		40-140	9		50
Isophorone	ND	1570	1000	64		1200	77		40-140	18		50
Naphthalene	ND	1570	1100	70		1300	83		40-140	17		50
Nitrobenzene	ND	1570	980	62		1200	77		40-140	20		50
NDPA/DPA	ND	1570	1200	76		1500	96		36-157	22		50

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09-11 QC Batch ID: WG1196039-4 WG1196039-5 QC Sample: L1900879-03 Client ID: RB10_33-35												
n-Nitrosodi-n-propylamine	ND	1570	1000	64		1200	77		32-121	18		50
Bis(2-ethylhexyl)phthalate	ND	1570	1400	89		1600	100		40-140	13		50
Butyl benzyl phthalate	ND	1570	1300	83		1500	96		40-140	14		50
Di-n-butylphthalate	ND	1570	1300	83		1600	100		40-140	21		50
Di-n-octylphthalate	ND	1570	1400	89		1600	100		40-140	13		50
Diethyl phthalate	ND	1570	1200	76		1400	89		40-140	15		50
Dimethyl phthalate	ND	1570	1200	76		1400	89		40-140	15		50
Benzo(a)anthracene	ND	1570	1200	76		1400	89		40-140	15		50
Benzo(a)pyrene	ND	1570	1200	76		1400	89		40-140	15		50
Benzo(b)fluoranthene	ND	1570	1200	76		1400	89		40-140	15		50
Benzo(k)fluoranthene	ND	1570	1200	76		1400	89		40-140	15		50
Chrysene	ND	1570	1200	76		1400	89		40-140	15		50
Acenaphthylene	ND	1570	1200	76		1400	89		40-140	15		50
Anthracene	ND	1570	1200	76		1500	96		40-140	22		50
Benzo(ghi)perylene	ND	1570	1200	76		1400	89		40-140	15		50
Fluorene	ND	1570	1200	76		1400	89		40-140	15		50
Phenanthrene	ND	1570	1200	76		1400	89		40-140	15		50
Dibenzo(a,h)anthracene	ND	1570	1200	76		1400	89		40-140	15		50
Indeno(1,2,3-cd)pyrene	ND	1570	1200	76		1400	89		40-140	15		50
Pyrene	ND	1570	1200	76		1400	89		35-142	15		50
Biphenyl	ND	1570	1200	76		1400	89		54-104	15		50
4-Chloroaniline	ND	1570	670	43		670	43		40-140	0		50
2-Nitroaniline	ND	1570	1400	89		1500	96		47-134	7		50

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09-11 QC Batch ID: WG1196039-4 WG1196039-5 QC Sample: L1900879-03 Client ID: RB10_33-35												
3-Nitroaniline	ND	1570	940	60		1000	64		26-129	6		50
4-Nitroaniline	ND	1570	1200	76		1400	89		41-125	15		50
Dibenzofuran	ND	1570	1200	76		1400	89		40-140	15		50
2-Methylnaphthalene	ND	1570	1200	76		1400	89		40-140	15		50
1,2,4,5-Tetrachlorobenzene	ND	1570	1300	83		1500	96		40-117	14		50
Acetophenone	ND	1570	1100	70		1300	83		14-144	17		50
2,4,6-Trichlorophenol	ND	1570	1400	89		1500	96		30-130	7		50
p-Chloro-m-cresol	ND	1570	1200	76		1400	89		26-103	15		50
2-Chlorophenol	ND	1570	1200	76		1400	89		25-102	15		50
2,4-Dichlorophenol	ND	1570	1300	83		1500	96		30-130	14		50
2,4-Dimethylphenol	ND	1570	1200	76		1400	89		30-130	15		50
2-Nitrophenol	ND	1570	1300	83		1500	96		30-130	14		50
4-Nitrophenol	ND	1570	1200	76		1300	83		11-114	8		50
2,4-Dinitrophenol	ND	1570	480J	31		630J	40		4-130	27		50
4,6-Dinitro-o-cresol	ND	1570	990	63		1200	77		10-130	19		50
Pentachlorophenol	ND	1570	1200	76		1500	96		17-109	22		50
Phenol	ND	1570	1000	64		1200	77		26-90	18		50
2-Methylphenol	ND	1570	1100	70		1300	83		30-130.	17		50
3-Methylphenol/4-Methylphenol	ND	1570	1200	76		1400	89		30-130	15		50
2,4,5-Trichlorophenol	ND	1570	1400	89		1600	100		30-130	13		50
Benzoic Acid	ND	1570	ND	0	Q	ND	0	Q	10-110	NC		50
Benzyl Alcohol	ND	1570	1000	64		1200	77		40-140	18		50
Carbazole	ND	1570	1200	76		1500	96		54-128	22		50

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09-11 QC Batch ID: WG1196039-4 WG1196039-5 QC Sample: L1900879-03
 Client ID: RB10_33-35

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
2,4,6-Tribromophenol	79		91		10-136
2-Fluorobiphenyl	78		89		30-120
2-Fluorophenol	71		82		25-120
4-Terphenyl-d14	76		91		18-120
Nitrobenzene-d5	65		75		23-120
Phenol-d6	68		79		10-120

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09-11 QC Batch ID: WG1196039-6 WG1196039-7 QC Sample: L1900879-07 Client ID: RB15_28-30												
Acenaphthene	ND	1610	1200	75		1200	75		31-137	0		50
1,2,4-Trichlorobenzene	ND	1610	1200	75		1200	75		38-107	0		50
Hexachlorobenzene	ND	1610	1200	75		1200	75		40-140	0		50
Bis(2-chloroethyl)ether	ND	1610	970	60		950	59		40-140	2		50
2-Chloronaphthalene	ND	1610	1200	75		1200	75		40-140	0		50
1,2-Dichlorobenzene	ND	1610	1100	68		1100	69		40-140	0		50
1,3-Dichlorobenzene	ND	1610	1100	68		1100	69		40-140	0		50
1,4-Dichlorobenzene	ND	1610	1100	68		1100	69		28-104	0		50
3,3'-Dichlorobenzidine	ND	1610	940	58		920	58		40-140	2		50
2,4-Dinitrotoluene	ND	1610	1200	75		1100	69		40-132	9		50
2,6-Dinitrotoluene	ND	1610	1100	68		1100	69		40-140	0		50
Fluoranthene	ND	1610	1200	75		1200	75		40-140	0		50
4-Chlorophenyl phenyl ether	ND	1610	1200	75		1200	75		40-140	0		50
4-Bromophenyl phenyl ether	ND	1610	1200	75		1200	75		40-140	0		50
Bis(2-chloroisopropyl)ether	ND	1610	1100	68		1100	69		40-140	0		50
Bis(2-chloroethoxy)methane	ND	1610	990	62		1000	63		40-117	1		50
Hexachlorobutadiene	ND	1610	1200	75		1200	75		40-140	0		50
Hexachlorocyclopentadiene	ND	1610	930	58		920	58		40-140	1		50
Hexachloroethane	ND	1610	1000	62		1100	69		40-140	10		50
Isophorone	ND	1610	1000	62		1000	63		40-140	0		50
Naphthalene	ND	1610	1100	68		1100	69		40-140	0		50
Nitrobenzene	ND	1610	960	60		990	62		40-140	3		50
NDPA/DPA	ND	1610	1200	75		1200	75		36-157	0		50

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09-11 QC Batch ID: WG1196039-6 WG1196039-7 QC Sample: L1900879-07 Client ID: RB15_28-30												
n-Nitrosodi-n-propylamine	ND	1610	980	61		1000	63		32-121	2		50
Bis(2-ethylhexyl)phthalate	ND	1610	1300	81		1400	88		40-140	7		50
Butyl benzyl phthalate	ND	1610	1200	75		1300	81		40-140	8		50
Di-n-butylphthalate	ND	1610	1300	81		1300	81		40-140	0		50
Di-n-octylphthalate	ND	1610	1300	81		1400	88		40-140	7		50
Diethyl phthalate	ND	1610	1200	75		1200	75		40-140	0		50
Dimethyl phthalate	ND	1610	1200	75		1200	75		40-140	0		50
Benzo(a)anthracene	ND	1610	1100	68		1200	75		40-140	9		50
Benzo(a)pyrene	ND	1610	1200	75		1200	75		40-140	0		50
Benzo(b)fluoranthene	ND	1610	1100	68		1200	75		40-140	9		50
Benzo(k)fluoranthene	ND	1610	1200	75		1200	75		40-140	0		50
Chrysene	ND	1610	1100	68		1200	75		40-140	9		50
Acenaphthylene	ND	1610	1200	75		1200	75		40-140	0		50
Anthracene	ND	1610	1200	75		1200	75		40-140	0		50
Benzo(ghi)perylene	ND	1610	1100	68		1100	69		40-140	0		50
Fluorene	ND	1610	1200	75		1200	75		40-140	0		50
Phenanthrene	ND	1610	1200	75		1200	75		40-140	0		50
Dibenzo(a,h)anthracene	ND	1610	1200	75		1200	75		40-140	0		50
Indeno(1,2,3-cd)pyrene	ND	1610	1200	75		1200	75		40-140	0		50
Pyrene	ND	1610	1200	75		1200	75		35-142	0		50
Biphenyl	ND	1610	1200	75		1200	75		54-104	0		50
4-Chloroaniline	ND	1610	660	41		620	39	Q	40-140	6		50
2-Nitroaniline	ND	1610	1300	81		1400	88		47-134	7		50

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09-11 QC Batch ID: WG1196039-6 WG1196039-7 QC Sample: L1900879-07 Client ID: RB15_28-30												
3-Nitroaniline	ND	1610	800	50		790	49		26-129	1		50
4-Nitroaniline	ND	1610	1100	68		1200	75		41-125	9		50
Dibenzofuran	ND	1610	1200	75		1200	75		40-140	0		50
2-Methylnaphthalene	ND	1610	1200	75		1200	75		40-140	0		50
1,2,4,5-Tetrachlorobenzene	ND	1610	1200	75		1200	75		40-117	0		50
Acetophenone	ND	1610	1100	68		1100	69		14-144	0		50
2,4,6-Trichlorophenol	ND	1610	1300	81		1300	81		30-130	0		50
p-Chloro-m-cresol	ND	1610	1100	68		1200	75		26-103	9		50
2-Chlorophenol	ND	1610	1200	75		1200	75		25-102	0		50
2,4-Dichlorophenol	ND	1610	1300	81		1300	81		30-130	0		50
2,4-Dimethylphenol	ND	1610	1100	68		1200	75		30-130	9		50
2-Nitrophenol	ND	1610	1100	68		1100	69		30-130	0		50
4-Nitrophenol	ND	1610	1100	68		1100	69		11-114	0		50
2,4-Dinitrophenol	ND	1610	210J	13		270J	17		4-130	25		50
4,6-Dinitro-o-cresol	ND	1610	630	39		600	38		10-130	5		50
Pentachlorophenol	ND	1610	1100	68		1200	75		17-109	9		50
Phenol	ND	1610	1000	62		1000	63		26-90	0		50
2-Methylphenol	ND	1610	1100	68		1100	69		30-130.	0		50
3-Methylphenol/4-Methylphenol	ND	1610	1200	75		1200	75		30-130	0		50
2,4,5-Trichlorophenol	ND	1610	1300	81		1400	88		30-130	7		50
Benzoic Acid	ND	1610	470J	29		430J	27		10-110	9		50
Benzyl Alcohol	ND	1610	1000	62		1000	63		40-140	0		50
Carbazole	ND	1610	1200	75		1200	75		54-128	0		50

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Semivolatiles Organics by GC/MS - Westborough Lab Associated sample(s): 01-07,09-11 QC Batch ID: WG1196039-6 WG1196039-7 QC Sample: L1900879-07
Client ID: RB15_28-30

Surrogate	MS		MSD		Acceptance Criteria
	% Recovery	Qualifier	% Recovery	Qualifier	
2,4,6-Tribromophenol	73		75		10-136
2-Fluorobiphenyl	74		74		30-120
2-Fluorophenol	69		70		25-120
4-Terphenyl-d14	71		74		18-120
Nitrobenzene-d5	60		61		23-120
Phenol-d6	66		67		10-120

PCBS

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-01
 Client ID: RB10_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:30
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/11/19 06:37
 Analyst: AWS
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 07:36
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/10/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.8	3.18	1	A
Aroclor 1221	ND		ug/kg	35.8	3.59	1	A
Aroclor 1232	ND		ug/kg	35.8	7.60	1	A
Aroclor 1242	ND		ug/kg	35.8	4.83	1	A
Aroclor 1248	ND		ug/kg	35.8	5.37	1	A
Aroclor 1254	ND		ug/kg	35.8	3.92	1	A
Aroclor 1260	ND		ug/kg	35.8	6.62	1	A
Aroclor 1262	ND		ug/kg	35.8	4.55	1	A
Aroclor 1268	ND		ug/kg	35.8	3.71	1	A
PCBs, Total	ND		ug/kg	35.8	3.18	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	51		30-150	A
Decachlorobiphenyl	55		30-150	A
2,4,5,6-Tetrachloro-m-xylene	48		30-150	B
Decachlorobiphenyl	59		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-02
 Client ID: RB10_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:35
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/11/19 06:51
 Analyst: AWS
 Percent Solids: 72%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 07:36
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/10/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	44.4	3.94	1	A
Aroclor 1221	ND		ug/kg	44.4	4.45	1	A
Aroclor 1232	ND		ug/kg	44.4	9.41	1	A
Aroclor 1242	ND		ug/kg	44.4	5.98	1	A
Aroclor 1248	ND		ug/kg	44.4	6.66	1	A
Aroclor 1254	ND		ug/kg	44.4	4.86	1	A
Aroclor 1260	ND		ug/kg	44.4	8.20	1	A
Aroclor 1262	ND		ug/kg	44.4	5.64	1	A
Aroclor 1268	ND		ug/kg	44.4	4.60	1	A
PCBs, Total	ND		ug/kg	44.4	3.94	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	62		30-150	A
2,4,5,6-Tetrachloro-m-xylene	57		30-150	B
Decachlorobiphenyl	68		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-03
 Client ID: RB10_33-35
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:40
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/11/19 04:29
 Analyst: AWS
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 07:36
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/10/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.1	3.47	1	A
Aroclor 1221	ND		ug/kg	39.1	3.92	1	A
Aroclor 1232	ND		ug/kg	39.1	8.28	1	A
Aroclor 1242	ND		ug/kg	39.1	5.27	1	A
Aroclor 1248	ND		ug/kg	39.1	5.86	1	A
Aroclor 1254	ND		ug/kg	39.1	4.28	1	A
Aroclor 1260	ND		ug/kg	39.1	7.22	1	A
Aroclor 1262	ND		ug/kg	39.1	4.96	1	A
Aroclor 1268	ND		ug/kg	39.1	4.05	1	A
PCBs, Total	ND		ug/kg	39.1	3.47	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		30-150	A
Decachlorobiphenyl	57		30-150	A
2,4,5,6-Tetrachloro-m-xylene	52		30-150	B
Decachlorobiphenyl	60		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-04
 Client ID: RB15_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/11/19 07:05
 Analyst: AWS
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 07:36
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/10/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.8	3.18	1	A
Aroclor 1221	ND		ug/kg	35.8	3.59	1	A
Aroclor 1232	ND		ug/kg	35.8	7.59	1	A
Aroclor 1242	ND		ug/kg	35.8	4.82	1	A
Aroclor 1248	ND		ug/kg	35.8	5.37	1	A
Aroclor 1254	ND		ug/kg	35.8	3.92	1	A
Aroclor 1260	ND		ug/kg	35.8	6.62	1	A
Aroclor 1262	ND		ug/kg	35.8	4.55	1	A
Aroclor 1268	ND		ug/kg	35.8	3.71	1	A
PCBs, Total	ND		ug/kg	35.8	3.18	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	53		30-150	A
Decachlorobiphenyl	54		30-150	A
2,4,5,6-Tetrachloro-m-xylene	50		30-150	B
Decachlorobiphenyl	55		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-05
Client ID: RB15_18-20
Sample Location: BRONX, NY

Date Collected: 01/08/19 13:05
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 01/11/19 07:19
Analyst: AWS
Percent Solids: 96%

Extraction Method: EPA 3546
Extraction Date: 01/09/19 07:36
Cleanup Method: EPA 3665A
Cleanup Date: 01/10/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	33.3	2.96	1	A
Aroclor 1221	ND		ug/kg	33.3	3.34	1	A
Aroclor 1232	ND		ug/kg	33.3	7.07	1	A
Aroclor 1242	ND		ug/kg	33.3	4.50	1	A
Aroclor 1248	ND		ug/kg	33.3	5.00	1	A
Aroclor 1254	ND		ug/kg	33.3	3.65	1	A
Aroclor 1260	ND		ug/kg	33.3	6.16	1	A
Aroclor 1262	ND		ug/kg	33.3	4.24	1	A
Aroclor 1268	ND		ug/kg	33.3	3.46	1	A
PCBs, Total	ND		ug/kg	33.3	2.96	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	57		30-150	A
Decachlorobiphenyl	46		30-150	A
2,4,5,6-Tetrachloro-m-xylene	54		30-150	B
Decachlorobiphenyl	49		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-06
 Client ID: RB15_23-25
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:15
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/11/19 13:53
 Analyst: HT
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 07:36
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/10/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.1	3.38	1	A
Aroclor 1221	ND		ug/kg	38.1	3.81	1	A
Aroclor 1232	ND		ug/kg	38.1	8.07	1	A
Aroclor 1242	ND		ug/kg	38.1	5.13	1	A
Aroclor 1248	ND		ug/kg	38.1	5.71	1	A
Aroclor 1254	ND		ug/kg	38.1	4.16	1	A
Aroclor 1260	ND		ug/kg	38.1	7.04	1	A
Aroclor 1262	ND		ug/kg	38.1	4.84	1	A
Aroclor 1268	ND		ug/kg	38.1	3.94	1	A
PCBs, Total	ND		ug/kg	38.1	3.38	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	37		30-150	A
Decachlorobiphenyl	31		30-150	A
2,4,5,6-Tetrachloro-m-xylene	34		30-150	B
Decachlorobiphenyl	34		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-07
 Client ID: RB15_28-30
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:10
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/11/19 05:12
 Analyst: AWS
 Percent Solids: 81%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 07:36
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/10/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.5	3.51	1	A
Aroclor 1221	ND		ug/kg	39.5	3.96	1	A
Aroclor 1232	ND		ug/kg	39.5	8.37	1	A
Aroclor 1242	ND		ug/kg	39.5	5.32	1	A
Aroclor 1248	ND		ug/kg	39.5	5.92	1	A
Aroclor 1254	ND		ug/kg	39.5	4.32	1	A
Aroclor 1260	ND		ug/kg	39.5	7.30	1	A
Aroclor 1262	ND		ug/kg	39.5	5.02	1	A
Aroclor 1268	ND		ug/kg	39.5	4.09	1	A
PCBs, Total	ND		ug/kg	39.5	3.51	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	66		30-150	A
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	67		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-08
 Client ID: RB16_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:40
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/11/19 18:23
 Analyst: HT
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 07:36
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/10/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/11/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.2	3.13	1	A
Aroclor 1221	ND		ug/kg	35.2	3.53	1	A
Aroclor 1232	ND		ug/kg	35.2	7.47	1	A
Aroclor 1242	ND		ug/kg	35.2	4.75	1	A
Aroclor 1248	ND		ug/kg	35.2	5.28	1	A
Aroclor 1254	ND		ug/kg	35.2	3.85	1	A
Aroclor 1260	ND		ug/kg	35.2	6.51	1	A
Aroclor 1262	ND		ug/kg	35.2	4.47	1	A
Aroclor 1268	ND		ug/kg	35.2	3.65	1	A
PCBs, Total	ND		ug/kg	35.2	3.13	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	42		30-150	A
Decachlorobiphenyl	37		30-150	A
2,4,5,6-Tetrachloro-m-xylene	54		30-150	B
Decachlorobiphenyl	51		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-09
 Client ID: RB16_13-15
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:45
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/11/19 18:36
 Analyst: HT
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 07:36
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/10/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/11/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.3	3.22	1	A
Aroclor 1221	ND		ug/kg	36.3	3.64	1	A
Aroclor 1232	ND		ug/kg	36.3	7.69	1	A
Aroclor 1242	ND		ug/kg	36.3	4.89	1	A
Aroclor 1248	ND		ug/kg	36.3	5.44	1	A
Aroclor 1254	ND		ug/kg	36.3	3.97	1	A
Aroclor 1260	ND		ug/kg	36.3	6.70	1	A
Aroclor 1262	ND		ug/kg	36.3	4.61	1	A
Aroclor 1268	ND		ug/kg	36.3	3.76	1	A
PCBs, Total	ND		ug/kg	36.3	3.22	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		30-150	A
Decachlorobiphenyl	51		30-150	A
2,4,5,6-Tetrachloro-m-xylene	62		30-150	B
Decachlorobiphenyl	62		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-10
 Client ID: RB16_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:50
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 01/11/19 18:49
 Analyst: HT
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 07:36
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/10/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/11/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	38.1	3.39	1	A
Aroclor 1221	ND		ug/kg	38.1	3.82	1	A
Aroclor 1232	ND		ug/kg	38.1	8.08	1	A
Aroclor 1242	ND		ug/kg	38.1	5.14	1	A
Aroclor 1248	ND		ug/kg	38.1	5.72	1	A
Aroclor 1254	ND		ug/kg	38.1	4.17	1	A
Aroclor 1260	ND		ug/kg	38.1	7.05	1	A
Aroclor 1262	ND		ug/kg	38.1	4.84	1	A
Aroclor 1268	ND		ug/kg	38.1	3.95	1	A
PCBs, Total	ND		ug/kg	38.1	3.39	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	48		30-150	A
Decachlorobiphenyl	41		30-150	A
2,4,5,6-Tetrachloro-m-xylene	61		30-150	B
Decachlorobiphenyl	52		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-11
Client ID: SODUP05_010819
Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 01/14/19 06:40
Analyst: WR
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 01/09/19 07:36
Cleanup Method: EPA 3665A
Cleanup Date: 01/10/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/11/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	39.0	3.46	1	A
Aroclor 1221	ND		ug/kg	39.0	3.91	1	A
Aroclor 1232	ND		ug/kg	39.0	8.27	1	A
Aroclor 1242	ND		ug/kg	39.0	5.26	1	A
Aroclor 1248	ND		ug/kg	39.0	5.85	1	A
Aroclor 1254	ND		ug/kg	39.0	4.27	1	A
Aroclor 1260	ND		ug/kg	39.0	7.21	1	A
Aroclor 1262	ND		ug/kg	39.0	4.96	1	A
Aroclor 1268	ND		ug/kg	39.0	4.04	1	A
PCBs, Total	ND		ug/kg	39.0	3.46	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	64		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		30-150	B
Decachlorobiphenyl	76		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-12
 Client ID: SOFB04_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8082A
 Analytical Date: 01/10/19 07:29
 Analyst: AWS

Extraction Method: EPA 3510C
 Extraction Date: 01/09/19 07:35
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/09/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/l	0.082	0.034	1	A
Aroclor 1221	ND		ug/l	0.082	0.066	1	A
Aroclor 1232	ND		ug/l	0.082	0.045	1	A
Aroclor 1242	ND		ug/l	0.082	0.038	1	A
Aroclor 1248	ND		ug/l	0.082	0.048	1	A
Aroclor 1254	ND		ug/l	0.082	0.039	1	A
Aroclor 1260	ND		ug/l	0.082	0.032	1	A
Aroclor 1262	ND		ug/l	0.082	0.034	1	A
Aroclor 1268	ND		ug/l	0.082	0.033	1	A
PCBs, Total	ND		ug/l	0.082	0.032	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		30-150	A
Decachlorobiphenyl	71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	69		30-150	B
Decachlorobiphenyl	77		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8082A
 Analytical Date: 01/09/19 11:01
 Analyst: HT

Extraction Method: EPA 3510C
 Extraction Date: 01/08/19 08:22
 Cleanup Method: EPA 3665A
 Cleanup Date: 01/08/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 01/09/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 12 Batch: WG1195614-1						
Aroclor 1016	ND		ug/l	0.082	0.034	A
Aroclor 1221	ND		ug/l	0.082	0.066	A
Aroclor 1232	ND		ug/l	0.082	0.045	A
Aroclor 1242	ND		ug/l	0.082	0.038	A
Aroclor 1248	ND		ug/l	0.082	0.048	A
Aroclor 1254	ND		ug/l	0.082	0.039	A
Aroclor 1260	ND		ug/l	0.082	0.032	A
Aroclor 1262	ND		ug/l	0.082	0.034	A
Aroclor 1268	ND		ug/l	0.082	0.033	A
PCBs, Total	ND		ug/l	0.082	0.032	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	77		30-150	A
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	87		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8082A
Analytical Date: 01/11/19 03:48
Analyst: AWS

Extraction Method: EPA 3546
Extraction Date: 01/09/19 07:36
Cleanup Method: EPA 3665A
Cleanup Date: 01/10/19
Cleanup Method: EPA 3660B
Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-11 Batch: WG1195950-1						
Aroclor 1016	ND		ug/kg	31.9	2.83	A
Aroclor 1221	ND		ug/kg	31.9	3.19	A
Aroclor 1232	ND		ug/kg	31.9	6.76	A
Aroclor 1242	ND		ug/kg	31.9	4.30	A
Aroclor 1248	ND		ug/kg	31.9	4.78	A
Aroclor 1254	ND		ug/kg	31.9	3.49	A
Aroclor 1260	ND		ug/kg	31.9	5.89	A
Aroclor 1262	ND		ug/kg	31.9	4.05	A
Aroclor 1268	ND		ug/kg	31.9	3.30	A
PCBs, Total	ND		ug/kg	31.9	2.83	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	73		30-150	A
2,4,5,6-Tetrachloro-m-xylene	61		30-150	B
Decachlorobiphenyl	74		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 12 Batch: WG1195614-2 WG1195614-3									
Aroclor 1016	73		77		40-140	6		50	A
Aroclor 1260	75		79		40-140	6		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		84		30-150	A
Decachlorobiphenyl	73		78		30-150	A
2,4,5,6-Tetrachloro-m-xylene	77		86		30-150	B
Decachlorobiphenyl	80		89		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-11 Batch: WG1195950-2 WG1195950-3									
Aroclor 1016	77		71		40-140	8		50	A
Aroclor 1260	72		70		40-140	3		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71		64		30-150	A
Decachlorobiphenyl	75		75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	72		65		30-150	B
Decachlorobiphenyl	78		78		30-150	B

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-11 QC Batch ID: WG1195950-4 WG1195950-5 QC Sample: L1900879-03 Client ID: RB10_33-35													
Aroclor 1016	ND	238	176	74		189	80		40-140	7		50	A
Aroclor 1260	ND	238	164	69		174	73		40-140	6		50	A

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
2,4,5,6-Tetrachloro-m-xylene	65		70		30-150	A
Decachlorobiphenyl	72		76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		73		30-150	B
Decachlorobiphenyl	76		80		30-150	B

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-11 QC Batch ID: WG1195950-6 WG1195950-7 QC Sample: L1900879-07 Client ID: RB15_28-30													
Aroclor 1016	ND	245	173	71		177	73		40-140	2		50	A
Aroclor 1260	ND	245	147	60		165	68		40-140	12		50	A

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
2,4,5,6-Tetrachloro-m-xylene	66		67		30-150	A
Decachlorobiphenyl	66		69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		67		30-150	B
Decachlorobiphenyl	62		73		30-150	B

PESTICIDES

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-01
 Client ID: RB10_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:30
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/11/19 18:29
 Analyst: SL
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 09:16
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.72	0.337	1	A
Lindane	ND		ug/kg	0.718	0.321	1	A
Alpha-BHC	ND		ug/kg	0.718	0.204	1	A
Beta-BHC	ND		ug/kg	1.72	0.653	1	A
Heptachlor	ND		ug/kg	0.862	0.386	1	A
Aldrin	ND		ug/kg	1.72	0.607	1	A
Heptachlor epoxide	ND		ug/kg	3.23	0.969	1	A
Endrin	5.73	P	ug/kg	0.718	0.294	1	A
Endrin aldehyde	ND		ug/kg	2.15	0.754	1	A
Endrin ketone	ND		ug/kg	1.72	0.444	1	A
Dieldrin	ND		ug/kg	1.08	0.538	1	A
4,4'-DDE	ND		ug/kg	1.72	0.398	1	A
4,4'-DDD	ND		ug/kg	1.72	0.614	1	A
4,4'-DDT	ND		ug/kg	3.23	1.38	1	A
Endosulfan I	ND		ug/kg	1.72	0.407	1	A
Endosulfan II	1.61	JIP	ug/kg	1.72	0.576	1	A
Endosulfan sulfate	ND		ug/kg	0.718	0.342	1	A
Methoxychlor	ND		ug/kg	3.23	1.00	1	A
Toxaphene	ND		ug/kg	32.3	9.05	1	A
cis-Chlordane	ND		ug/kg	2.15	0.600	1	A
trans-Chlordane	ND		ug/kg	2.15	0.569	1	A
Chlordane	ND		ug/kg	14.0	5.71	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-01

Date Collected: 01/08/19 11:30

Client ID: RB10_0-2

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	81		30-150	B
Decachlorobiphenyl	77		30-150	B
2,4,5,6-Tetrachloro-m-xylene	85		30-150	A
Decachlorobiphenyl	67		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-01
 Client ID: RB10_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:30
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/14/19 15:10
 Analyst: DGM
 Percent Solids: 91%
 Methylation Date: 01/12/19 20:02

Extraction Method: EPA 8151A
 Extraction Date: 01/11/19 12:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	182	11.5	1	A
2,4,5-T	ND		ug/kg	182	5.64	1	A
2,4,5-TP (Silvex)	ND		ug/kg	182	4.84	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	101		30-150	A
DCAA	88		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-02
 Client ID: RB10_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:35
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/15/19 12:53
 Analyst: BM
 Percent Solids: 72%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 09:16
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.15	0.421	1	A
Lindane	ND		ug/kg	0.895	0.400	1	A
Alpha-BHC	ND		ug/kg	0.895	0.254	1	A
Beta-BHC	ND		ug/kg	2.15	0.814	1	A
Heptachlor	ND		ug/kg	1.07	0.482	1	A
Aldrin	ND		ug/kg	2.15	0.756	1	A
Heptachlor epoxide	ND		ug/kg	4.03	1.21	1	A
Endrin	ND		ug/kg	0.895	0.367	1	A
Endrin aldehyde	ND		ug/kg	2.68	0.940	1	A
Endrin ketone	ND		ug/kg	2.15	0.553	1	A
Dieldrin	ND		ug/kg	1.34	0.671	1	A
4,4'-DDE	ND		ug/kg	2.15	0.497	1	A
4,4'-DDD	ND		ug/kg	2.15	0.766	1	A
4,4'-DDT	ND		ug/kg	4.03	1.73	1	A
Endosulfan I	ND		ug/kg	2.15	0.508	1	A
Endosulfan II	ND		ug/kg	2.15	0.718	1	A
Endosulfan sulfate	ND		ug/kg	0.895	0.426	1	A
Methoxychlor	ND		ug/kg	4.03	1.25	1	A
Toxaphene	ND		ug/kg	40.3	11.3	1	A
cis-Chlordane	ND		ug/kg	2.68	0.748	1	A
trans-Chlordane	ND		ug/kg	2.68	0.709	1	A
Chlordane	ND		ug/kg	17.4	7.12	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-02

Date Collected: 01/08/19 11:35

Client ID: RB10_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	96		30-150	B
Decachlorobiphenyl	84		30-150	B
2,4,5,6-Tetrachloro-m-xylene	102		30-150	A
Decachlorobiphenyl	93		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-02
 Client ID: RB10_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:35
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/14/19 15:29
 Analyst: DGM
 Percent Solids: 72%
 Methylation Date: 01/12/19 20:02

Extraction Method: EPA 8151A
 Extraction Date: 01/11/19 12:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	229	14.4	1	A
2,4,5-T	ND		ug/kg	229	7.10	1	A
2,4,5-TP (Silvex)	ND		ug/kg	229	6.10	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	115		30-150	A
DCAA	171	Q	30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-03
 Client ID: RB10_33-35
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:40
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/11/19 15:58
 Analyst: KEG
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 09:16
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.87	0.367	1	A
Lindane	ND		ug/kg	0.780	0.349	1	A
Alpha-BHC	ND		ug/kg	0.780	0.222	1	A
Beta-BHC	ND		ug/kg	1.87	0.710	1	A
Heptachlor	ND		ug/kg	0.937	0.420	1	A
Aldrin	ND		ug/kg	1.87	0.660	1	A
Heptachlor epoxide	ND		ug/kg	3.51	1.05	1	A
Endrin	ND		ug/kg	0.780	0.320	1	A
Endrin aldehyde	ND		ug/kg	2.34	0.820	1	A
Endrin ketone	ND		ug/kg	1.87	0.482	1	A
Dieldrin	ND		ug/kg	1.17	0.585	1	A
4,4'-DDE	ND		ug/kg	1.87	0.433	1	A
4,4'-DDD	ND		ug/kg	1.87	0.668	1	A
4,4'-DDT	ND		ug/kg	3.51	1.51	1	A
Endosulfan I	ND		ug/kg	1.87	0.442	1	A
Endosulfan II	ND		ug/kg	1.87	0.626	1	A
Endosulfan sulfate	ND		ug/kg	0.780	0.372	1	A
Methoxychlor	ND		ug/kg	3.51	1.09	1	A
Toxaphene	ND		ug/kg	35.1	9.84	1	A
cis-Chlordane	ND		ug/kg	2.34	0.652	1	A
trans-Chlordane	ND		ug/kg	2.34	0.618	1	A
Chlordane	ND		ug/kg	15.2	6.20	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-03

Date Collected: 01/08/19 11:40

Client ID: RB10_33-35

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	112		30-150	B
Decachlorobiphenyl	97		30-150	B
2,4,5,6-Tetrachloro-m-xylene	108		30-150	A
Decachlorobiphenyl	78		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-03
 Client ID: RB10_33-35
 Sample Location: BRONX, NY

Date Collected: 01/08/19 11:40
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/14/19 13:17
 Analyst: DGM
 Percent Solids: 83%
 Methylation Date: 01/12/19 20:02

Extraction Method: EPA 8151A
 Extraction Date: 01/11/19 12:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	196	12.4	1	A
2,4,5-T	ND		ug/kg	196	6.08	1	A
2,4,5-TP (Silvex)	ND		ug/kg	196	5.22	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	76		30-150	A
DCAA	70		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-04
 Client ID: RB15_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/11/19 18:55
 Analyst: SL
 Percent Solids: 88%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 09:16
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.79	0.351	1	A
Lindane	ND		ug/kg	0.747	0.334	1	A
Alpha-BHC	ND		ug/kg	0.747	0.212	1	A
Beta-BHC	ND		ug/kg	1.79	0.680	1	A
Heptachlor	ND		ug/kg	0.896	0.402	1	A
Aldrin	ND		ug/kg	1.79	0.631	1	A
Heptachlor epoxide	ND		ug/kg	3.36	1.01	1	A
Endrin	ND		ug/kg	0.747	0.306	1	A
Endrin aldehyde	1.20	J	ug/kg	2.24	0.784	1	A
Endrin ketone	ND		ug/kg	1.79	0.462	1	A
Dieldrin	ND		ug/kg	1.12	0.560	1	A
4,4'-DDE	ND		ug/kg	1.79	0.414	1	A
4,4'-DDD	ND		ug/kg	1.79	0.639	1	A
4,4'-DDT	ND		ug/kg	3.36	1.44	1	A
Endosulfan I	ND		ug/kg	1.79	0.424	1	A
Endosulfan II	0.787	JP	ug/kg	1.79	0.599	1	B
Endosulfan sulfate	ND		ug/kg	0.747	0.356	1	A
Methoxychlor	ND		ug/kg	3.36	1.04	1	A
Toxaphene	ND		ug/kg	33.6	9.41	1	A
cis-Chlordane	ND		ug/kg	2.24	0.624	1	A
trans-Chlordane	ND	IP	ug/kg	2.24	0.592	1	A
Chlordane	ND		ug/kg	14.6	5.94	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-04

Date Collected: 01/08/19 13:00

Client ID: RB15_0-2

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	B
Decachlorobiphenyl	80		30-150	B
2,4,5,6-Tetrachloro-m-xylene	97		30-150	A
Decachlorobiphenyl	63		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-04
 Client ID: RB15_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/14/19 15:48
 Analyst: DGM
 Percent Solids: 88%
 Methylation Date: 01/12/19 20:02

Extraction Method: EPA 8151A
 Extraction Date: 01/11/19 12:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	189	11.9	1	A
2,4,5-T	ND		ug/kg	189	5.86	1	A
2,4,5-TP (Silvex)	ND		ug/kg	189	5.03	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	37		30-150	A
DCAA	59		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-05
 Client ID: RB15_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:05
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/11/19 19:08
 Analyst: SL
 Percent Solids: 96%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 09:16
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.61	0.316	1	A
Lindane	ND		ug/kg	0.671	0.300	1	A
Alpha-BHC	ND		ug/kg	0.671	0.191	1	A
Beta-BHC	ND		ug/kg	1.61	0.611	1	A
Heptachlor	ND		ug/kg	0.806	0.361	1	A
Aldrin	ND		ug/kg	1.61	0.567	1	A
Heptachlor epoxide	ND		ug/kg	3.02	0.906	1	A
Endrin	ND		ug/kg	0.671	0.275	1	A
Endrin aldehyde	ND		ug/kg	2.01	0.705	1	A
Endrin ketone	ND		ug/kg	1.61	0.415	1	A
Dieldrin	ND		ug/kg	1.01	0.503	1	A
4,4'-DDE	ND		ug/kg	1.61	0.372	1	A
4,4'-DDD	ND		ug/kg	1.61	0.575	1	A
4,4'-DDT	ND		ug/kg	3.02	1.30	1	A
Endosulfan I	ND		ug/kg	1.61	0.381	1	A
Endosulfan II	ND		ug/kg	1.61	0.538	1	A
Endosulfan sulfate	ND		ug/kg	0.671	0.320	1	A
Methoxychlor	ND		ug/kg	3.02	0.940	1	A
Toxaphene	ND		ug/kg	30.2	8.46	1	A
cis-Chlordane	ND		ug/kg	2.01	0.561	1	A
trans-Chlordane	ND		ug/kg	2.01	0.532	1	A
Chlordane	ND		ug/kg	13.1	5.34	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-05

Date Collected: 01/08/19 13:05

Client ID: RB15_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	92		30-150	B
Decachlorobiphenyl	78		30-150	B
2,4,5,6-Tetrachloro-m-xylene	314	Q	30-150	A
Decachlorobiphenyl	85		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-05
 Client ID: RB15_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:05
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/15/19 14:56
 Analyst: DGM
 Percent Solids: 96%
 Methylation Date: 01/12/19 20:02

Extraction Method: EPA 8151A
 Extraction Date: 01/11/19 12:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	173	10.9	1	A
2,4,5-T	ND		ug/kg	173	5.35	1	A
2,4,5-TP (Silvex)	ND		ug/kg	173	4.59	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	121		30-150	A
DCAA	100		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-06
Client ID: RB15_23-25
Sample Location: BRONX, NY

Date Collected: 01/08/19 13:15
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8081B
Analytical Date: 01/11/19 19:20
Analyst: SL
Percent Solids: 83%

Extraction Method: EPA 3546
Extraction Date: 01/09/19 09:16
Cleanup Method: EPA 3620B
Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.82	0.357	1	A
Lindane	ND		ug/kg	0.760	0.340	1	A
Alpha-BHC	ND		ug/kg	0.760	0.216	1	A
Beta-BHC	ND		ug/kg	1.82	0.692	1	A
Heptachlor	ND		ug/kg	0.912	0.409	1	A
Aldrin	ND		ug/kg	1.82	0.643	1	A
Heptachlor epoxide	ND		ug/kg	3.42	1.03	1	A
Endrin	ND		ug/kg	0.760	0.312	1	A
Endrin aldehyde	ND		ug/kg	2.28	0.798	1	A
Endrin ketone	ND		ug/kg	1.82	0.470	1	A
Dieldrin	ND		ug/kg	1.14	0.570	1	A
4,4'-DDE	ND		ug/kg	1.82	0.422	1	A
4,4'-DDD	ND		ug/kg	1.82	0.651	1	A
4,4'-DDT	ND		ug/kg	3.42	1.47	1	A
Endosulfan I	ND		ug/kg	1.82	0.431	1	A
Endosulfan II	ND		ug/kg	1.82	0.610	1	A
Endosulfan sulfate	ND		ug/kg	0.760	0.362	1	A
Methoxychlor	ND		ug/kg	3.42	1.06	1	A
Toxaphene	ND		ug/kg	34.2	9.58	1	A
cis-Chlordane	ND		ug/kg	2.28	0.636	1	A
trans-Chlordane	ND	IP	ug/kg	2.28	0.602	1	A
Chlordane	ND		ug/kg	14.8	6.04	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-06

Date Collected: 01/08/19 13:15

Client ID: RB15_23-25

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	86		30-150	B
Decachlorobiphenyl	77		30-150	B
2,4,5,6-Tetrachloro-m-xylene	181	Q	30-150	A
Decachlorobiphenyl	100		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-06
 Client ID: RB15_23-25
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:15
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/15/19 11:09
 Analyst: DGM
 Percent Solids: 83%
 Methylation Date: 01/12/19 20:02

Extraction Method: EPA 8151A
 Extraction Date: 01/11/19 12:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	200	12.6	1	A
2,4,5-T	ND		ug/kg	200	6.21	1	A
2,4,5-TP (Silvex)	ND		ug/kg	200	5.32	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	121		30-150	A
DCAA	98		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-07
 Client ID: RB15_28-30
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:10
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/11/19 16:36
 Analyst: KEG
 Percent Solids: 81%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 09:17
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.91	0.374	1	A
Lindane	ND		ug/kg	0.796	0.356	1	A
Alpha-BHC	ND		ug/kg	0.796	0.226	1	A
Beta-BHC	ND		ug/kg	1.91	0.725	1	A
Heptachlor	ND		ug/kg	0.956	0.428	1	A
Aldrin	ND		ug/kg	1.91	0.673	1	A
Heptachlor epoxide	ND		ug/kg	3.58	1.08	1	A
Endrin	ND		ug/kg	0.796	0.326	1	A
Endrin aldehyde	ND		ug/kg	2.39	0.836	1	A
Endrin ketone	ND		ug/kg	1.91	0.492	1	A
Dieldrin	ND		ug/kg	1.19	0.597	1	A
4,4'-DDE	ND		ug/kg	1.91	0.442	1	A
4,4'-DDD	ND		ug/kg	1.91	0.682	1	A
4,4'-DDT	ND		ug/kg	3.58	1.54	1	A
Endosulfan I	ND		ug/kg	1.91	0.452	1	A
Endosulfan II	ND		ug/kg	1.91	0.639	1	A
Endosulfan sulfate	ND		ug/kg	0.796	0.379	1	A
Methoxychlor	ND		ug/kg	3.58	1.11	1	A
Toxaphene	ND		ug/kg	35.8	10.0	1	A
cis-Chlordane	ND		ug/kg	2.39	0.666	1	A
trans-Chlordane	ND		ug/kg	2.39	0.631	1	A
Chlordane	ND		ug/kg	15.5	6.33	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-07

Date Collected: 01/08/19 13:10

Client ID: RB15_28-30

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	B
Decachlorobiphenyl	77		30-150	B
2,4,5,6-Tetrachloro-m-xylene	145		30-150	A
Decachlorobiphenyl	106		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-07
 Client ID: RB15_28-30
 Sample Location: BRONX, NY

Date Collected: 01/08/19 13:10
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/14/19 14:13
 Analyst: DGM
 Percent Solids: 81%
 Methylation Date: 01/12/19 20:02

Extraction Method: EPA 8151A
 Extraction Date: 01/11/19 12:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	202	12.7	1	A
2,4,5-T	ND		ug/kg	202	6.26	1	A
2,4,5-TP (Silvex)	ND		ug/kg	202	5.37	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	117		30-150	A
DCAA	89		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-08
 Client ID: RB16_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:40
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/11/19 19:33
 Analyst: SL
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 09:17
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.67	0.327	1	A
Lindane	ND		ug/kg	0.696	0.311	1	A
Alpha-BHC	ND		ug/kg	0.696	0.198	1	A
Beta-BHC	ND		ug/kg	1.67	0.634	1	A
Heptachlor	ND		ug/kg	0.836	0.375	1	A
Aldrin	ND		ug/kg	1.67	0.589	1	A
Heptachlor epoxide	ND		ug/kg	3.13	0.940	1	A
Endrin	ND		ug/kg	0.696	0.286	1	A
Endrin aldehyde	ND		ug/kg	2.09	0.731	1	A
Endrin ketone	ND		ug/kg	1.67	0.430	1	A
Dieldrin	ND		ug/kg	1.04	0.522	1	A
4,4'-DDE	ND		ug/kg	1.67	0.387	1	A
4,4'-DDD	ND		ug/kg	1.67	0.596	1	A
4,4'-DDT	ND		ug/kg	3.13	1.34	1	A
Endosulfan I	ND		ug/kg	1.67	0.395	1	A
Endosulfan II	1.17	JIP	ug/kg	1.67	0.559	1	A
Endosulfan sulfate	ND		ug/kg	0.696	0.332	1	A
Methoxychlor	ND		ug/kg	3.13	0.975	1	A
Toxaphene	ND		ug/kg	31.3	8.78	1	A
cis-Chlordane	ND		ug/kg	2.09	0.582	1	A
trans-Chlordane	ND		ug/kg	2.09	0.552	1	A
Chlordane	ND		ug/kg	13.6	5.54	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-08

Date Collected: 01/08/19 10:40

Client ID: RB16_0-2

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	53		30-150	B
Decachlorobiphenyl	56		30-150	B
2,4,5,6-Tetrachloro-m-xylene	55		30-150	A
Decachlorobiphenyl	57		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-08
 Client ID: RB16_0-2
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:40
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/15/19 11:28
 Analyst: DGM
 Percent Solids: 93%
 Methylation Date: 01/12/19 20:02

Extraction Method: EPA 8151A
 Extraction Date: 01/11/19 12:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	175	11.0	1	A
2,4,5-T	ND		ug/kg	175	5.42	1	A
2,4,5-TP (Silvex)	ND		ug/kg	175	4.65	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	79		30-150	A
DCAA	102		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-09
 Client ID: RB16_13-15
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:45
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/11/19 19:46
 Analyst: SL
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 09:17
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.70	0.332	1	A
Lindane	ND		ug/kg	0.706	0.316	1	A
Alpha-BHC	ND		ug/kg	0.706	0.201	1	A
Beta-BHC	ND		ug/kg	1.70	0.643	1	A
Heptachlor	ND		ug/kg	0.848	0.380	1	A
Aldrin	ND		ug/kg	1.70	0.597	1	A
Heptachlor epoxide	ND		ug/kg	3.18	0.954	1	A
Endrin	25.2	P	ug/kg	0.706	0.290	1	A
Endrin aldehyde	ND		ug/kg	2.12	0.742	1	A
Endrin ketone	ND		ug/kg	1.70	0.437	1	A
Dieldrin	ND		ug/kg	1.06	0.530	1	A
4,4'-DDE	ND		ug/kg	1.70	0.392	1	A
4,4'-DDD	6.69		ug/kg	1.70	0.605	1	A
4,4'-DDT	5.53	IP	ug/kg	3.18	1.36	1	B
Endosulfan I	ND		ug/kg	1.70	0.401	1	A
Endosulfan II	ND		ug/kg	1.70	0.567	1	A
Endosulfan sulfate	ND		ug/kg	0.706	0.336	1	A
Methoxychlor	ND		ug/kg	3.18	0.989	1	A
Toxaphene	ND		ug/kg	31.8	8.90	1	A
cis-Chlordane	ND		ug/kg	2.12	0.591	1	A
trans-Chlordane	ND		ug/kg	2.12	0.560	1	A
Chlordane	ND		ug/kg	13.8	5.62	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-09

Date Collected: 01/08/19 10:45

Client ID: RB16_13-15

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	B
Decachlorobiphenyl	100		30-150	B
2,4,5,6-Tetrachloro-m-xylene	106		30-150	A
Decachlorobiphenyl	102		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-09
 Client ID: RB16_13-15
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:45
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/15/19 11:47
 Analyst: DGM
 Percent Solids: 91%
 Methylation Date: 01/12/19 20:02

Extraction Method: EPA 8151A
 Extraction Date: 01/11/19 12:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	181	11.4	1	A
2,4,5-T	ND		ug/kg	181	5.62	1	A
2,4,5-TP (Silvex)	ND		ug/kg	181	4.83	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	111		30-150	A
DCAA	79		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-10
 Client ID: RB16_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:50
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/11/19 19:59
 Analyst: SL
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 09:17
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.84	0.360	1	A
Lindane	ND		ug/kg	0.767	0.343	1	A
Alpha-BHC	ND		ug/kg	0.767	0.218	1	A
Beta-BHC	ND		ug/kg	1.84	0.698	1	A
Heptachlor	ND		ug/kg	0.920	0.412	1	A
Aldrin	ND		ug/kg	1.84	0.648	1	A
Heptachlor epoxide	ND		ug/kg	3.45	1.04	1	A
Endrin	ND		ug/kg	0.767	0.314	1	A
Endrin aldehyde	ND		ug/kg	2.30	0.805	1	A
Endrin ketone	ND		ug/kg	1.84	0.474	1	A
Dieldrin	ND		ug/kg	1.15	0.575	1	A
4,4'-DDE	ND		ug/kg	1.84	0.426	1	A
4,4'-DDD	ND		ug/kg	1.84	0.656	1	A
4,4'-DDT	ND		ug/kg	3.45	1.48	1	A
Endosulfan I	ND		ug/kg	1.84	0.435	1	A
Endosulfan II	ND		ug/kg	1.84	0.615	1	A
Endosulfan sulfate	ND		ug/kg	0.767	0.365	1	A
Methoxychlor	ND		ug/kg	3.45	1.07	1	A
Toxaphene	ND		ug/kg	34.5	9.66	1	A
cis-Chlordane	ND		ug/kg	2.30	0.641	1	A
trans-Chlordane	ND		ug/kg	2.30	0.607	1	A
Chlordane	ND		ug/kg	15.0	6.10	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-10

Date Collected: 01/08/19 10:50

Client ID: RB16_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	110		30-150	B
Decachlorobiphenyl	93		30-150	B
2,4,5,6-Tetrachloro-m-xylene	106		30-150	A
Decachlorobiphenyl	83		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-10
 Client ID: RB16_18-20
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:50
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/15/19 12:05
 Analyst: DGM
 Percent Solids: 83%
 Methylation Date: 01/12/19 20:02

Extraction Method: EPA 8151A
 Extraction Date: 01/11/19 12:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	198	12.5	1	A
2,4,5-T	ND		ug/kg	198	6.15	1	A
2,4,5-TP (Silvex)	ND		ug/kg	198	5.28	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	114		30-150	A
DCAA	99		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-11
 Client ID: SODUP05_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 01/11/19 20:11
 Analyst: SL
 Percent Solids: 83%

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 09:17
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/10/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.84	0.360	1	A
Lindane	ND		ug/kg	0.766	0.342	1	A
Alpha-BHC	ND		ug/kg	0.766	0.218	1	A
Beta-BHC	ND		ug/kg	1.84	0.697	1	A
Heptachlor	ND		ug/kg	0.919	0.412	1	A
Aldrin	ND		ug/kg	1.84	0.647	1	A
Heptachlor epoxide	ND		ug/kg	3.45	1.03	1	A
Endrin	ND		ug/kg	0.766	0.314	1	A
Endrin aldehyde	ND		ug/kg	2.30	0.804	1	A
Endrin ketone	ND		ug/kg	1.84	0.473	1	A
Dieldrin	ND	IP	ug/kg	1.15	0.574	1	B
4,4'-DDE	ND		ug/kg	1.84	0.425	1	A
4,4'-DDD	ND		ug/kg	1.84	0.656	1	A
4,4'-DDT	ND		ug/kg	3.45	1.48	1	A
Endosulfan I	ND		ug/kg	1.84	0.434	1	A
Endosulfan II	ND		ug/kg	1.84	0.614	1	A
Endosulfan sulfate	ND		ug/kg	0.766	0.364	1	A
Methoxychlor	ND		ug/kg	3.45	1.07	1	A
Toxaphene	ND		ug/kg	34.5	9.65	1	A
cis-Chlordane	ND		ug/kg	2.30	0.640	1	A
trans-Chlordane	11.2	IP	ug/kg	2.30	0.607	1	A
Chlordane	ND		ug/kg	14.9	6.09	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-11
 Client ID: SODUP05_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	B
Decachlorobiphenyl	53		30-150	B
2,4,5,6-Tetrachloro-m-xylene	120		30-150	A
Decachlorobiphenyl	85		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-11
 Client ID: SODUP05_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 01/15/19 12:24
 Analyst: DGM
 Percent Solids: 83%
 Methylation Date: 01/12/19 20:02

Extraction Method: EPA 8151A
 Extraction Date: 01/11/19 12:56

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	197	12.4	1	A
2,4,5-T	ND		ug/kg	197	6.11	1	A
2,4,5-TP (Silvex)	ND		ug/kg	197	5.25	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	114		30-150	A
DCAA	85		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-12
 Client ID: SOFB04_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8081B
 Analytical Date: 01/10/19 17:44
 Analyst: KEG

Extraction Method: EPA 3510C
 Extraction Date: 01/09/19 07:29

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/l	0.014	0.003	1	A
Lindane	ND		ug/l	0.014	0.003	1	A
Alpha-BHC	ND		ug/l	0.014	0.003	1	A
Beta-BHC	ND		ug/l	0.014	0.004	1	A
Heptachlor	ND		ug/l	0.014	0.002	1	A
Aldrin	ND		ug/l	0.014	0.002	1	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	1	A
Endrin	ND		ug/l	0.029	0.003	1	A
Endrin aldehyde	ND		ug/l	0.029	0.006	1	A
Endrin ketone	ND		ug/l	0.029	0.003	1	A
Dieldrin	ND		ug/l	0.029	0.003	1	A
4,4'-DDE	ND		ug/l	0.029	0.003	1	A
4,4'-DDD	ND		ug/l	0.029	0.003	1	A
4,4'-DDT	ND		ug/l	0.029	0.003	1	A
Endosulfan I	ND		ug/l	0.014	0.002	1	A
Endosulfan II	ND		ug/l	0.029	0.004	1	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	1	A
Methoxychlor	ND		ug/l	0.143	0.005	1	A
Toxaphene	ND		ug/l	0.143	0.045	1	A
cis-Chlordane	ND		ug/l	0.014	0.005	1	A
trans-Chlordane	ND		ug/l	0.014	0.004	1	A
Chlordane	ND		ug/l	0.143	0.033	1	A

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-12

Date Collected: 01/08/19 10:00

Client ID: SOFB04_010819

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	75		30-150	A
Decachlorobiphenyl	69		30-150	A
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	73		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-12
 Client ID: SOFB04_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8151A
 Analytical Date: 01/10/19 20:36
 Analyst: AMC

Extraction Method: EPA 8151A
 Extraction Date: 01/09/19 18:22

Methylation Date: 01/10/19 03:11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/l	10.0	0.498	1	A
2,4,5-T	ND		ug/l	2.00	0.531	1	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	102		30-150	A
DCAA	87		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/10/19 12:25
Analyst: BM

Extraction Method: EPA 3510C
Extraction Date: 01/08/19 09:11

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 12 Batch: WG1195638-1						
Delta-BHC	ND		ug/l	0.014	0.003	A
Lindane	ND		ug/l	0.014	0.003	A
Alpha-BHC	ND		ug/l	0.014	0.003	A
Beta-BHC	ND		ug/l	0.014	0.004	A
Heptachlor	ND		ug/l	0.014	0.002	A
Aldrin	ND		ug/l	0.014	0.002	A
Heptachlor epoxide	ND		ug/l	0.014	0.003	A
Endrin	ND		ug/l	0.029	0.003	A
Endrin aldehyde	ND		ug/l	0.029	0.006	A
Endrin ketone	ND		ug/l	0.029	0.003	A
Dieldrin	ND		ug/l	0.029	0.003	A
4,4'-DDE	ND		ug/l	0.029	0.003	A
4,4'-DDD	ND		ug/l	0.029	0.003	A
4,4'-DDT	ND		ug/l	0.029	0.003	A
Endosulfan I	ND		ug/l	0.014	0.002	A
Endosulfan II	ND		ug/l	0.029	0.004	A
Endosulfan sulfate	ND		ug/l	0.029	0.003	A
Methoxychlor	ND		ug/l	0.143	0.005	A
Toxaphene	ND		ug/l	0.143	0.045	A
cis-Chlordane	ND		ug/l	0.014	0.005	A
trans-Chlordane	ND		ug/l	0.014	0.004	A
Chlordane	ND		ug/l	0.143	0.033	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
 Analytical Date: 01/10/19 12:25
 Analyst: BM

Extraction Method: EPA 3510C
 Extraction Date: 01/08/19 09:11

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 12 Batch: WG1195638-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	59		30-150	A
2,4,5,6-Tetrachloro-m-xylene	66		30-150	B
Decachlorobiphenyl	63		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/11/19 15:33
Analyst: KEG

Extraction Method: EPA 3546
Extraction Date: 01/09/19 09:16
Cleanup Method: EPA 3620B
Cleanup Date: 01/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01,03-11 Batch: WG1195981-1						
Delta-BHC	ND		ug/kg	1.58	0.309	A
Lindane	ND		ug/kg	0.658	0.294	A
Alpha-BHC	ND		ug/kg	0.658	0.187	A
Beta-BHC	ND		ug/kg	1.58	0.599	A
Heptachlor	ND		ug/kg	0.789	0.354	A
Aldrin	ND		ug/kg	1.58	0.556	A
Heptachlor epoxide	ND		ug/kg	2.96	0.888	A
Endrin	ND		ug/kg	0.658	0.270	A
Endrin aldehyde	ND		ug/kg	1.97	0.691	A
Endrin ketone	ND		ug/kg	1.58	0.406	A
Dieldrin	ND		ug/kg	0.987	0.493	A
4,4'-DDE	ND		ug/kg	1.58	0.365	A
4,4'-DDD	ND		ug/kg	1.58	0.563	A
4,4'-DDT	ND		ug/kg	2.96	1.27	A
Endosulfan I	ND		ug/kg	1.58	0.373	A
Endosulfan II	ND		ug/kg	1.58	0.528	A
Endosulfan sulfate	ND		ug/kg	0.658	0.313	A
Methoxychlor	ND		ug/kg	2.96	0.921	A
Toxaphene	ND		ug/kg	29.6	8.29	A
cis-Chlordane	ND		ug/kg	1.97	0.550	A
trans-Chlordane	ND		ug/kg	1.97	0.521	A
Chlordane	ND		ug/kg	12.8	5.23	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

**Method Blank Analysis
 Batch Quality Control**

Analytical Method: 1,8081B
 Analytical Date: 01/11/19 15:33
 Analyst: KEG

Extraction Method: EPA 3546
 Extraction Date: 01/09/19 09:16
 Cleanup Method: EPA 3620B
 Cleanup Date: 01/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01,03-11 Batch: WG1195981-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	118		30-150	B
Decachlorobiphenyl	102		30-150	B
2,4,5,6-Tetrachloro-m-xylene	114		30-150	A
Decachlorobiphenyl	98		30-150	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 01/10/19 11:42
Analyst: KEG

Extraction Method: EPA 8151A
Extraction Date: 01/09/19 18:22

Methylation Date: 01/10/19 03:11

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 12 Batch: WG1196169-1						
2,4-D	ND		ug/l	10.0	0.498	A
2,4,5-T	ND		ug/l	2.00	0.531	A
2,4,5-TP (Silvex)	ND		ug/l	2.00	0.539	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	113		30-150	A
DCAA	89		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
 Analytical Date: 01/11/19 10:43
 Analyst: KEG

Extraction Method: EPA 8151A
 Extraction Date: 01/10/19 15:24

Methylation Date: 01/11/19 04:45

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-11 Batch: WG1196650-1						
2,4-D	ND		ug/kg	161	10.2	A
2,4,5-T	ND		ug/kg	161	5.00	A
2,4,5-TP (Silvex)	ND		ug/kg	161	4.29	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	76		30-150	A
DCAA	68		30-150	B

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/15/19 12:28
Analyst: BM

Extraction Method: EPA 3546
Extraction Date: 01/09/19 09:16
Cleanup Method: EPA 3620B
Cleanup Date: 01/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 02 Batch: WG1197817-1						
Delta-BHC	ND		ug/kg	1.58	0.309	A
Lindane	ND		ug/kg	0.658	0.294	A
Alpha-BHC	ND		ug/kg	0.658	0.187	A
Beta-BHC	ND		ug/kg	1.58	0.599	A
Heptachlor	ND		ug/kg	0.789	0.354	A
Aldrin	ND		ug/kg	1.58	0.556	A
Heptachlor epoxide	ND		ug/kg	2.96	0.888	A
Endrin	ND		ug/kg	0.658	0.270	A
Endrin aldehyde	ND		ug/kg	1.97	0.691	A
Endrin ketone	ND		ug/kg	1.58	0.406	A
Dieldrin	ND		ug/kg	0.987	0.493	A
4,4'-DDE	ND		ug/kg	1.58	0.365	A
4,4'-DDD	ND		ug/kg	1.58	0.563	A
4,4'-DDT	ND		ug/kg	2.96	1.27	A
Endosulfan I	ND		ug/kg	1.58	0.373	A
Endosulfan II	ND		ug/kg	1.58	0.528	A
Endosulfan sulfate	ND		ug/kg	0.658	0.313	A
Methoxychlor	ND		ug/kg	2.96	0.921	A
Toxaphene	ND		ug/kg	29.6	8.29	A
cis-Chlordane	ND		ug/kg	1.97	0.550	A
trans-Chlordane	ND		ug/kg	1.97	0.521	A
Chlordane	ND		ug/kg	12.8	5.23	A

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 01/15/19 12:28
Analyst: BM

Extraction Method: EPA 3546
Extraction Date: 01/09/19 09:16
Cleanup Method: EPA 3620B
Cleanup Date: 01/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 02 Batch: WG1197817-1						

Surrogate	%Recovery	Qualifier	Acceptance	
			Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	117		30-150	B
Decachlorobiphenyl	100		30-150	B
2,4,5,6-Tetrachloro-m-xylene	114		30-150	A
Decachlorobiphenyl	98		30-150	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 12 Batch: WG1195638-2 WG1195638-3									
Delta-BHC	72		83		30-150	14		20	A
Lindane	72		78		30-150	7		20	A
Alpha-BHC	75		82		30-150	9		20	A
Beta-BHC	76		88		30-150	14		20	A
Heptachlor	72		78		30-150	8		20	A
Aldrin	71		76		30-150	8		20	A
Heptachlor epoxide	77		84		30-150	9		20	A
Endrin	75		83		30-150	11		20	A
Endrin aldehyde	59		62		30-150	5		20	A
Endrin ketone	69		82		30-150	17		20	A
Dieldrin	77		85		30-150	9		20	A
4,4'-DDE	74		82		30-150	10		20	A
4,4'-DDD	76		79		30-150	4		20	A
4,4'-DDT	71		75		30-150	6		20	A
Endosulfan I	71		78		30-150	10		20	A
Endosulfan II	71		76		30-150	7		20	A
Endosulfan sulfate	65		78		30-150	19		20	A
Methoxychlor	71		83		30-150	16		20	A
cis-Chlordane	64		69		30-150	7		20	A
trans-Chlordane	69		75		30-150	9		20	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 12 Batch: WG1195638-2 WG1195638-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	72		81		30-150	A
Decachlorobiphenyl	36		38		30-150	A
2,4,5,6-Tetrachloro-m-xylene	74		81		30-150	B
Decachlorobiphenyl	36		44		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03-11 Batch: WG1195981-2 WG1195981-3									
Delta-BHC	86		90		30-150	5		30	A
Lindane	80		87		30-150	8		30	A
Alpha-BHC	87		91		30-150	4		30	A
Beta-BHC	90		93		30-150	3		30	A
Heptachlor	100		104		30-150	4		30	A
Aldrin	82		86		30-150	5		30	A
Heptachlor epoxide	72		93		30-150	25		30	A
Endrin	87		98		30-150	12		30	A
Endrin aldehyde	61		64		30-150	5		30	A
Endrin ketone	76		80		30-150	5		30	A
Dieldrin	88		99		30-150	12		30	A
4,4'-DDE	80		78		30-150	3		30	A
4,4'-DDD	85		91		30-150	7		30	A
4,4'-DDT	82		88		30-150	7		30	A
Endosulfan I	80		84		30-150	5		30	A
Endosulfan II	86		91		30-150	6		30	A
Endosulfan sulfate	68		72		30-150	6		30	A
Methoxychlor	84		90		30-150	7		30	A
cis-Chlordane	70		76		30-150	8		30	A
trans-Chlordane	72		82		30-150	13		30	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03-11 Batch: WG1195981-2 WG1195981-3								

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	99		98		30-150	B
Decachlorobiphenyl	84		86		30-150	B
2,4,5,6-Tetrachloro-m-xylene	93		94		30-150	A
Decachlorobiphenyl	81		75		30-150	A

Lab Control Sample Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 12 Batch: WG1196169-2 WG1196169-3									
2,4-D	100		101		30-150	1		25	A
2,4,5-T	100		98		30-150	2		25	A
2,4,5-TP (Silvex)	99		100		30-150	1		25	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	101		100		30-150	A
DCAA	97		96		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-11 Batch: WG1196650-2 WG1196650-3									
2,4-D	97		102		30-150	5		30	A
2,4,5-T	71		72		30-150	1		30	A
2,4,5-TP (Silvex)	64		66		30-150	3		30	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
DCAA	73		76		30-150	A
DCAA	70		73		30-150	B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02 Batch: WG1197817-2 WG1197817-3									
Delta-BHC	81		88		30-150	8		30	A
Lindane	78		82		30-150	5		30	A
Alpha-BHC	81		88		30-150	8		30	A
Beta-BHC	86		90		30-150	5		30	A
Heptachlor	88		94		30-150	7		30	A
Aldrin	81		85		30-150	5		30	A
Heptachlor epoxide	56		72		30-150	25		30	A
Endrin	85		90		30-150	6		30	A
Endrin aldehyde	61		65		30-150	6		30	A
Endrin ketone	74		78		30-150	5		30	A
Dieldrin	84		98		30-150	15		30	A
4,4'-DDE	80		77		30-150	4		30	A
4,4'-DDD	82		90		30-150	9		30	A
4,4'-DDT	77		84		30-150	9		30	A
Endosulfan I	78		87		30-150	11		30	A
Endosulfan II	83		89		30-150	7		30	A
Endosulfan sulfate	45		57		30-150	24		30	A
Methoxychlor	79		86		30-150	8		30	A
cis-Chlordane	70		76		30-150	8		30	A
trans-Chlordane	64		71		30-150	10		30	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 02 Batch: WG1197817-2 WG1197817-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	116		102		30-150	B
Decachlorobiphenyl	99		86		30-150	B
2,4,5,6-Tetrachloro-m-xylene	91		100		30-150	A
Decachlorobiphenyl	81		84		30-150	A

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03-11 QC Batch ID: WG1195981-4 WG1195981-5 QC Sample: L1900879-03 Client ID: RB10_33-35													
Delta-BHC	ND	38.1	34.6	91		38.2	100		30-150	10		50	A
Lindane	ND	38.1	32.8	86		35.4	93		30-150	8		50	A
Alpha-BHC	ND	38.1	35.3	93		39.4	103		30-150	11		50	A
Beta-BHC	ND	38.1	38.5	101		40.5	106		30-150	5		50	A
Heptachlor	ND	38.1	38.8	102		43.3	113		30-150	11		50	A
Aldrin	ND	38.1	34.6	91		39.0	102		30-150	12		50	A
Heptachlor epoxide	ND	38.1	35.3	93		39.8	104		30-150	12		50	A
Endrin	ND	38.1	35.6	94		40.8	107		30-150	14		50	A
Endrin aldehyde	ND	38.1	26.0	68		31.1	82		30-150	18		50	A
Endrin ketone	ND	38.1	31.1	82		36.4	95		30-150	16		50	A
Dieldrin	ND	38.1	38.4	101		44.4	116		30-150	14		50	A
4,4'-DDE	ND	38.1	34.1	90		40.2	105		30-150	16		50	A
4,4'-DDD	ND	38.1	34.4	90		40.0	105		30-150	15		50	A
4,4'-DDT	ND	38.1	33.7	89		39.6	104		30-150	16		50	A
Endosulfan I	ND	38.1	34.5	91		39.9	105		30-150	15		50	A
Endosulfan II	ND	38.1	35.7	94		41.0	107		30-150	14		50	A
Endosulfan sulfate	ND	38.1	28.4	75		32.5	85		30-150	13		50	A
Methoxychlor	ND	38.1	35.0	92		40.9	107		30-150	16		50	A
cis-Chlordane	ND	38.1	31.8	84		37.5	98		30-150	16		50	A
trans-Chlordane	ND	38.1	31.0	81		35.5	93		30-150	14		50	A

Matrix Spike Analysis**Batch Quality Control****Project Name:** GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03-11 QC Batch ID: WG1195981-4 WG1195981-5 QC Sample: L1900879-03
Client ID: RB10_33-35

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
2,4,5,6-Tetrachloro-m-xylene	103		110		30-150	B
Decachlorobiphenyl	90		105		30-150	B
2,4,5,6-Tetrachloro-m-xylene	99		104		30-150	A
Decachlorobiphenyl	85		101		30-150	A

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03-11 QC Batch ID: WG1195981-6 WG1195981-7 QC Sample: L1900879-07 Client ID: RB15_28-30													
Delta-BHC	ND	39	38.7P	99		40.5	104		30-150	5		50	A
Lindane	ND	39	35.7	92		39.2	101		30-150	9		50	A
Alpha-BHC	ND	39	37.5	96		42.6	110		30-150	13		50	A
Beta-BHC	ND	39	38.6	99		41.3	106		30-150	7		50	A
Heptachlor	ND	39	45.9P	118		50.2	129		30-150	9		50	A
Aldrin	ND	39	35.0	90		39.1	101		30-150	11		50	A
Heptachlor epoxide	ND	39	37.2	96		34.8	90		30-150	7		50	A
Endrin	ND	39	39.4	101		41.6	107		30-150	5		50	A
Endrin aldehyde	ND	39	28.1	72		26.5	68		30-150	6		50	A
Endrin ketone	ND	39	37.4	96		36.2	93		30-150	3		50	A
Dieldrin	ND	39	39.8	102		42.1	109		30-150	6		50	A
4,4'-DDE	ND	39	35.6	91		37.5	97		30-150	5		50	A
4,4'-DDD	ND	39	38.4	99		40.1	103		30-150	4		50	A
4,4'-DDT	ND	39	38.4	99		39.8	103		30-150	4		50	A
Endosulfan I	ND	39	36.9	95		38.1	98		30-150	3		50	A
Endosulfan II	ND	39	39.7	102		40.7	105		30-150	2		50	A
Endosulfan sulfate	ND	39	33.9	87		31.8	82		30-150	6		50	A
Methoxychlor	ND	39	39.6	102		41.0	106		30-150	3		50	A
cis-Chlordane	ND	39	32.1	82		34.1	88		30-150	6		50	A
trans-Chlordane	ND	39	36.3	93		33.2	86		30-150	9		50	A

Matrix Spike Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01,03-11 QC Batch ID: WG1195981-6 WG1195981-7 QC Sample: L1900879-07
Client ID: RB15_28-30

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
2,4,5,6-Tetrachloro-m-xylene	84		101		30-150	B
Decachlorobiphenyl	84		97		30-150	B
2,4,5,6-Tetrachloro-m-xylene	107		121		30-150	A
Decachlorobiphenyl	96		95		30-150	A

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-11 QC Batch ID: WG1196650-4 WG1196650-5 QC Sample: L1900879-03 Client ID: RB10_33-35													
2,4-D	ND	199	134J	67		158J	80		30-150	16		30	A
2,4,5-T	ND	199	175J	88		179J	90		30-150	2		30	A
2,4,5-TP (Silvex)	ND	199	176J	88		186J	94		30-150	6		30	A

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
DCAA	53		71		30-150	A
DCAA	64		70		30-150	B

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-11 QC Batch ID: WG1196650-6 WG1196650-7 QC Sample: L1900879-07 Client ID: RB15_28-30													
2,4-D	ND	206	190J	92		192J	93		30-150	1		30	A
2,4,5-T	ND	206	213	103		216	105		30-150	1		30	A
2,4,5-TP (Silvex)	ND	206	197J	96		200J	97		30-150	2		30	A

Surrogate	MS		MSD		Acceptance Criteria	Column
	% Recovery	Qualifier	% Recovery	Qualifier		
DCAA	115		108		30-150	A
DCAA	90		90		30-150	B



METALS

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-01

Date Collected: 01/08/19 11:30

Client ID: RB10_0-2

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5840		mg/kg	8.53	2.30	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Antimony, Total	0.691	J	mg/kg	4.27	0.324	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Arsenic, Total	2.48		mg/kg	0.853	0.177	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Barium, Total	50.0		mg/kg	0.853	0.148	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Beryllium, Total	ND		mg/kg	0.427	0.028	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Cadmium, Total	0.213	J	mg/kg	0.853	0.084	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Calcium, Total	8040		mg/kg	8.53	2.99	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Chromium, Total	14.6		mg/kg	0.853	0.082	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Cobalt, Total	8.27		mg/kg	1.71	0.142	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Copper, Total	27.1		mg/kg	0.853	0.220	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Iron, Total	17700		mg/kg	4.27	0.770	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Lead, Total	71.6		mg/kg	4.27	0.229	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Magnesium, Total	5330		mg/kg	8.53	1.31	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Manganese, Total	235		mg/kg	0.853	0.136	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Mercury, Total	0.159		mg/kg	0.070	0.015	1	01/09/19 07:00	01/09/19 21:39	EPA 7471B	1,7471B	EA
Nickel, Total	25.0		mg/kg	2.13	0.206	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Potassium, Total	1650		mg/kg	213	12.3	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Selenium, Total	0.264	J	mg/kg	1.71	0.220	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.853	0.241	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Sodium, Total	663		mg/kg	171	2.69	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.71	0.269	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Vanadium, Total	20.3		mg/kg	0.853	0.173	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
Zinc, Total	73.8		mg/kg	4.27	0.250	2	01/09/19 19:21	01/10/19 22:50	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	15		mg/kg	0.88	0.88	1		01/10/19 22:50	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-02

Date Collected: 01/08/19 11:35

Client ID: RB10_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 72%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4100		mg/kg	10.9	2.94	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Antimony, Total	0.958	J	mg/kg	5.45	0.414	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Arsenic, Total	17.2		mg/kg	1.09	0.226	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Barium, Total	57.4		mg/kg	1.09	0.190	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Beryllium, Total	0.087	J	mg/kg	0.545	0.036	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Cadmium, Total	0.556	J	mg/kg	1.09	0.107	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Calcium, Total	34100		mg/kg	10.9	3.81	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Chromium, Total	7.47		mg/kg	1.09	0.104	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Cobalt, Total	3.29		mg/kg	2.18	0.181	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Copper, Total	63.2		mg/kg	1.09	0.281	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Iron, Total	10600		mg/kg	5.45	0.984	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Lead, Total	96.8		mg/kg	5.45	0.292	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Magnesium, Total	3480		mg/kg	10.9	1.68	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Manganese, Total	248		mg/kg	1.09	0.173	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Mercury, Total	0.146		mg/kg	0.087	0.018	1	01/09/19 07:00	01/09/19 21:41	EPA 7471B	1,7471B	EA
Nickel, Total	7.74		mg/kg	2.72	0.264	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Potassium, Total	645		mg/kg	272	15.7	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Selenium, Total	12.5		mg/kg	2.18	0.281	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	1.09	0.308	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Sodium, Total	219		mg/kg	218	3.43	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	2.18	0.343	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Vanadium, Total	14.8		mg/kg	1.09	0.221	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
Zinc, Total	130		mg/kg	5.45	0.319	2	01/09/19 19:21	01/10/19 23:24	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	6.8	J	mg/kg	1.1	1.1	1		01/10/19 23:24	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-03

Date Collected: 01/08/19 11:40

Client ID: RB10_33-35

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	3050		mg/kg	9.46	2.56	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.73	0.360	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Arsenic, Total	0.558	J	mg/kg	0.946	0.197	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Barium, Total	39.0		mg/kg	0.946	0.165	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Beryllium, Total	0.123	J	mg/kg	0.473	0.031	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.946	0.093	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Calcium, Total	513		mg/kg	9.46	3.31	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Chromium, Total	6.84		mg/kg	0.946	0.091	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Cobalt, Total	3.57		mg/kg	1.89	0.157	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Copper, Total	6.43		mg/kg	0.946	0.244	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Iron, Total	7460		mg/kg	4.73	0.855	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Lead, Total	3.85	J	mg/kg	4.73	0.254	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Magnesium, Total	1470		mg/kg	9.46	1.46	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Manganese, Total	284		mg/kg	0.946	0.150	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.076	0.016	1	01/09/19 07:00	01/09/19 21:20	EPA 7471B	1,7471B	EA
Nickel, Total	8.45		mg/kg	2.37	0.229	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Potassium, Total	597		mg/kg	237	13.6	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	1.89	0.244	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.946	0.268	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Sodium, Total	205		mg/kg	189	2.98	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.89	0.298	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Vanadium, Total	8.14		mg/kg	0.946	0.192	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
Zinc, Total	15.5		mg/kg	4.73	0.277	2	01/09/19 19:21	01/10/19 21:53	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	6.5	J	mg/kg	0.97	0.97	1		01/10/19 21:53	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-04

Date Collected: 01/08/19 13:00

Client ID: RB15_0-2

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 88%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6690		mg/kg	8.92	2.41	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.46	0.339	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Arsenic, Total	5.31		mg/kg	0.892	0.186	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Barium, Total	134		mg/kg	0.892	0.155	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Beryllium, Total	ND		mg/kg	0.446	0.029	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Cadmium, Total	0.170	J	mg/kg	0.892	0.087	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Calcium, Total	67500		mg/kg	8.92	3.12	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Chromium, Total	11.3		mg/kg	0.892	0.086	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Cobalt, Total	4.69		mg/kg	1.78	0.148	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Copper, Total	24.4		mg/kg	0.892	0.230	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Iron, Total	10300		mg/kg	4.46	0.806	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Lead, Total	244		mg/kg	4.46	0.239	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Magnesium, Total	2380		mg/kg	8.92	1.37	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Manganese, Total	136		mg/kg	0.892	0.142	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Mercury, Total	0.076		mg/kg	0.073	0.015	1	01/09/19 07:00	01/09/19 21:43	EPA 7471B	1,7471B	EA
Nickel, Total	8.92		mg/kg	2.23	0.216	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Potassium, Total	1960		mg/kg	223	12.8	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	1.78	0.230	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.892	0.252	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Sodium, Total	456		mg/kg	178	2.81	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.78	0.281	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Vanadium, Total	18.7		mg/kg	0.892	0.181	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
Zinc, Total	102		mg/kg	4.46	0.261	2	01/09/19 19:21	01/10/19 22:54	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	11	J	mg/kg	0.91	0.91	1		01/10/19 22:54	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-05

Date Collected: 01/08/19 13:05

Client ID: RB15_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 96%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6310		mg/kg	7.99	2.16	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Antimony, Total	0.383	J	mg/kg	3.99	0.303	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Arsenic, Total	2.99		mg/kg	0.799	0.166	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Barium, Total	56.2		mg/kg	0.799	0.139	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Beryllium, Total	ND		mg/kg	0.399	0.026	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Cadmium, Total	0.080	J	mg/kg	0.799	0.078	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Calcium, Total	24400		mg/kg	7.99	2.80	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Chromium, Total	11.2		mg/kg	0.799	0.077	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Cobalt, Total	5.91		mg/kg	1.60	0.132	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Copper, Total	22.4		mg/kg	0.799	0.206	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Iron, Total	12800		mg/kg	3.99	0.721	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Lead, Total	69.4		mg/kg	3.99	0.214	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Magnesium, Total	3660		mg/kg	7.99	1.23	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Manganese, Total	352		mg/kg	0.799	0.127	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Mercury, Total	0.276		mg/kg	0.067	0.014	1	01/09/19 07:00	01/09/19 21:45	EPA 7471B	1,7471B	EA
Nickel, Total	9.74		mg/kg	2.00	0.193	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Potassium, Total	1290		mg/kg	200	11.5	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Selenium, Total	0.671	J	mg/kg	1.60	0.206	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.799	0.226	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Sodium, Total	186		mg/kg	160	2.52	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.60	0.252	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Vanadium, Total	15.8		mg/kg	0.799	0.162	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
Zinc, Total	53.1		mg/kg	3.99	0.234	2	01/09/19 19:21	01/10/19 22:58	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	11		mg/kg	0.84	0.84	1		01/10/19 22:58	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-06

Date Collected: 01/08/19 13:15

Client ID: RB15_23-25

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4200		mg/kg	9.51	2.57	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.76	0.362	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Arsenic, Total	0.999		mg/kg	0.951	0.198	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Barium, Total	5.38		mg/kg	0.951	0.166	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Beryllium, Total	0.133	J	mg/kg	0.476	0.031	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.951	0.093	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Calcium, Total	486		mg/kg	9.51	3.33	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Chromium, Total	10.7		mg/kg	0.951	0.091	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Cobalt, Total	2.64		mg/kg	1.90	0.158	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Copper, Total	8.83		mg/kg	0.951	0.245	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Iron, Total	7520		mg/kg	4.76	0.859	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Lead, Total	3.87	J	mg/kg	4.76	0.255	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Magnesium, Total	1340		mg/kg	9.51	1.46	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Manganese, Total	50.2		mg/kg	0.951	0.151	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.076	0.016	1	01/09/19 07:00	01/09/19 21:47	EPA 7471B	1,7471B	EA
Nickel, Total	6.45		mg/kg	2.38	0.230	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Potassium, Total	442		mg/kg	238	13.7	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	1.90	0.245	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.951	0.269	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Sodium, Total	90.2	J	mg/kg	190	3.00	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.90	0.300	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Vanadium, Total	19.8		mg/kg	0.951	0.193	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
Zinc, Total	15.3		mg/kg	4.76	0.279	2	01/09/19 19:21	01/10/19 23:28	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	11		mg/kg	0.97	0.97	1		01/10/19 23:28	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-07

Date Collected: 01/08/19 13:10

Client ID: RB15_28-30

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5550		mg/kg	9.65	2.61	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Antimony, Total	1.68	J	mg/kg	4.83	0.367	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Arsenic, Total	2.08		mg/kg	0.965	0.201	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Barium, Total	10.8		mg/kg	0.965	0.168	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Beryllium, Total	0.154	J	mg/kg	0.483	0.032	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.965	0.095	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Calcium, Total	814		mg/kg	9.65	3.38	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Chromium, Total	12.0		mg/kg	0.965	0.093	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Cobalt, Total	5.65		mg/kg	1.93	0.160	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Copper, Total	12.1		mg/kg	0.965	0.249	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Iron, Total	13400		mg/kg	4.83	0.872	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Lead, Total	5.27		mg/kg	4.83	0.259	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Magnesium, Total	2070		mg/kg	9.65	1.49	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Manganese, Total	831		mg/kg	0.965	0.153	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.078	0.016	1	01/09/19 07:00	01/09/19 21:31	EPA 7471B	1,7471B	EA
Nickel, Total	9.17		mg/kg	2.41	0.234	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Potassium, Total	698		mg/kg	241	13.9	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Selenium, Total	0.492	J	mg/kg	1.93	0.249	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.965	0.273	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Sodium, Total	150	J	mg/kg	193	3.04	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.93	0.304	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Vanadium, Total	13.4		mg/kg	0.965	0.196	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
Zinc, Total	24.2		mg/kg	4.83	0.283	2	01/09/19 19:21	01/10/19 22:09	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	11	J	mg/kg	0.99	0.99	1		01/10/19 22:09	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-08

Date Collected: 01/08/19 10:40

Client ID: RB16_0-2

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5030		mg/kg	8.10	2.19	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Antimony, Total	2.07	J	mg/kg	4.05	0.308	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Arsenic, Total	3.40		mg/kg	0.810	0.168	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Barium, Total	44.0		mg/kg	0.810	0.141	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Beryllium, Total	ND		mg/kg	0.405	0.027	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Cadmium, Total	0.251	J	mg/kg	0.810	0.079	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Calcium, Total	18600		mg/kg	8.10	2.84	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Chromium, Total	11.8		mg/kg	0.810	0.078	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Cobalt, Total	5.41		mg/kg	1.62	0.134	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Copper, Total	32.3		mg/kg	0.810	0.209	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Iron, Total	17200		mg/kg	4.05	0.732	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Lead, Total	288		mg/kg	4.05	0.217	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Magnesium, Total	7350		mg/kg	8.10	1.25	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Manganese, Total	302		mg/kg	0.810	0.129	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Mercury, Total	0.638		mg/kg	0.067	0.014	1	01/09/19 07:00	01/09/19 21:49	EPA 7471B	1,7471B	EA
Nickel, Total	10.2		mg/kg	2.03	0.196	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Potassium, Total	1800		mg/kg	203	11.7	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Selenium, Total	0.235	J	mg/kg	1.62	0.209	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.810	0.229	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Sodium, Total	781		mg/kg	162	2.55	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.62	0.255	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Vanadium, Total	14.4		mg/kg	0.810	0.164	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
Zinc, Total	94.4		mg/kg	4.05	0.237	2	01/09/19 19:21	01/10/19 23:32	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	12		mg/kg	0.86	0.86	1		01/10/19 23:32	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-09

Date Collected: 01/08/19 10:45

Client ID: RB16_13-15

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	12000		mg/kg	8.61	2.32	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.30	0.327	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Arsenic, Total	2.28		mg/kg	0.861	0.179	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Barium, Total	157		mg/kg	0.861	0.150	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Beryllium, Total	ND		mg/kg	4.30	0.284	20	01/09/19 19:21	01/11/19 00:48	EPA 3050B	1,6010D	AB
Cadmium, Total	0.206	J	mg/kg	0.861	0.084	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Calcium, Total	2720		mg/kg	8.61	3.01	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Chromium, Total	22.0		mg/kg	0.861	0.083	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Cobalt, Total	15.2		mg/kg	1.72	0.143	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Copper, Total	77.7		mg/kg	0.861	0.222	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Iron, Total	28700		mg/kg	4.30	0.777	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Lead, Total	39.2		mg/kg	4.30	0.231	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Magnesium, Total	4990		mg/kg	8.61	1.32	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Manganese, Total	149		mg/kg	0.861	0.137	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Mercury, Total	0.460		mg/kg	0.070	0.015	1	01/09/19 07:00	01/09/19 21:54	EPA 7471B	1,7471B	EA
Nickel, Total	22.2		mg/kg	2.15	0.208	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Potassium, Total	7900		mg/kg	215	12.4	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	1.72	0.222	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.861	0.244	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Sodium, Total	215		mg/kg	172	2.71	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.72	0.271	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Vanadium, Total	42.8		mg/kg	0.861	0.175	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
Zinc, Total	82.0		mg/kg	4.30	0.252	2	01/09/19 19:21	01/10/19 23:36	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	22		mg/kg	0.88	0.88	1		01/10/19 23:36	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-10

Date Collected: 01/08/19 10:50

Client ID: RB16_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5860		mg/kg	9.51	2.57	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Antimony, Total	4.60	J	mg/kg	4.76	0.362	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Arsenic, Total	2.93		mg/kg	0.951	0.198	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Barium, Total	64.8		mg/kg	0.951	0.166	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Beryllium, Total	ND		mg/kg	0.476	0.031	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Cadmium, Total	0.143	J	mg/kg	0.951	0.093	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Calcium, Total	24200		mg/kg	9.51	3.33	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Chromium, Total	10.8		mg/kg	0.951	0.091	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Cobalt, Total	4.55		mg/kg	1.90	0.158	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Copper, Total	24.0		mg/kg	0.951	0.245	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Iron, Total	12700		mg/kg	4.76	0.859	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Lead, Total	351		mg/kg	4.76	0.255	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Magnesium, Total	3750		mg/kg	9.51	1.46	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Manganese, Total	257		mg/kg	0.951	0.151	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Mercury, Total	1.45		mg/kg	0.077	0.016	1	01/09/19 07:00	01/09/19 21:56	EPA 7471B	1,7471B	EA
Nickel, Total	8.44		mg/kg	2.38	0.230	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Potassium, Total	1010		mg/kg	238	13.7	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Selenium, Total	0.380	J	mg/kg	1.90	0.245	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.951	0.269	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Sodium, Total	110	J	mg/kg	190	3.00	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.90	0.300	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Vanadium, Total	17.2		mg/kg	0.951	0.193	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
Zinc, Total	59.0		mg/kg	4.76	0.279	2	01/09/19 19:21	01/10/19 23:40	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	11		mg/kg	0.97	0.97	1		01/10/19 23:40	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-11
 Client ID: SODUP05_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 00:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Soil
 Percent Solids: 83%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4490		mg/kg	9.43	2.55	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Antimony, Total	ND		mg/kg	4.72	0.358	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Arsenic, Total	2.19		mg/kg	0.943	0.196	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Barium, Total	7.45		mg/kg	0.943	0.164	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Beryllium, Total	0.151	J	mg/kg	0.472	0.031	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.943	0.093	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Calcium, Total	493		mg/kg	9.43	3.30	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Chromium, Total	11.1		mg/kg	0.943	0.091	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Cobalt, Total	3.48		mg/kg	1.89	0.157	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Copper, Total	9.26		mg/kg	0.943	0.243	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Iron, Total	10200		mg/kg	4.72	0.852	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Lead, Total	6.01		mg/kg	4.72	0.253	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Magnesium, Total	1520		mg/kg	9.43	1.45	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Manganese, Total	67.5		mg/kg	0.943	0.150	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Mercury, Total	ND		mg/kg	0.076	0.016	1	01/09/19 07:00	01/09/19 21:58	EPA 7471B	1,7471B	EA
Nickel, Total	6.86		mg/kg	2.36	0.228	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Potassium, Total	591		mg/kg	236	13.6	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Selenium, Total	ND		mg/kg	1.89	0.243	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Silver, Total	ND		mg/kg	0.943	0.267	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Sodium, Total	91.8	J	mg/kg	189	2.97	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Thallium, Total	ND		mg/kg	1.89	0.297	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Vanadium, Total	12.8		mg/kg	0.943	0.192	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
Zinc, Total	16.6		mg/kg	4.72	0.276	2	01/09/19 19:21	01/10/19 23:45	EPA 3050B	1,6010D	AB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	11		mg/kg	0.96	0.96	1		01/10/19 23:45	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-12
 Client ID: SOFB04_010819
 Sample Location: BRONX, NY

Date Collected: 01/08/19 10:00
 Date Received: 01/08/19
 Field Prep: Not Specified

Sample Depth:
 Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		mg/l	0.100	0.032	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Antimony, Total	ND		mg/l	0.050	0.007	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Arsenic, Total	ND		mg/l	0.005	0.002	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Barium, Total	0.002	J	mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Beryllium, Total	ND		mg/l	0.005	0.001	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Cadmium, Total	ND		mg/l	0.005	0.001	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Calcium, Total	0.058	J	mg/l	0.100	0.035	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Chromium, Total	ND		mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Cobalt, Total	ND		mg/l	0.020	0.002	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Copper, Total	ND		mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Iron, Total	ND		mg/l	0.050	0.009	1	01/09/19 13:02	01/14/19 15:57	EPA 3005A	1,6010D	AB
Lead, Total	ND		mg/l	0.010	0.003	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Magnesium, Total	ND		mg/l	0.100	0.015	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Manganese, Total	ND		mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Mercury, Total	ND		mg/l	0.00020	0.00006	1	01/09/19 11:16	01/09/19 17:20	EPA 7470A	1,7470A	MG
Nickel, Total	ND		mg/l	0.025	0.002	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Potassium, Total	ND		mg/l	2.50	0.237	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Selenium, Total	ND		mg/l	0.010	0.004	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Silver, Total	ND		mg/l	0.007	0.003	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Sodium, Total	ND		mg/l	2.00	0.120	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Thallium, Total	ND		mg/l	0.020	0.003	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Vanadium, Total	ND		mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
Zinc, Total	ND		mg/l	0.050	0.002	1	01/09/19 13:02	01/09/19 22:56	EPA 3005A	1,6010D	MC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		mg/l	0.010	0.010	1		01/09/19 22:56	NA	107,-	



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-11 Batch: WG1195927-1									
Mercury, Total	ND	mg/kg	0.083	0.018	1	01/09/19 07:00	01/09/19 21:16	1,7471B	EA

Prep Information

Digestion Method: EPA 7471B

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 12 Batch: WG1196029-1									
Mercury, Total	ND	mg/l	0.00020	0.00006	1	01/09/19 11:16	01/09/19 16:44	1,7470A	MG

Prep Information

Digestion Method: EPA 7470A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 12 Batch: WG1196054-1									
Aluminum, Total	ND	mg/l	0.100	0.032	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Antimony, Total	ND	mg/l	0.050	0.007	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Arsenic, Total	ND	mg/l	0.005	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Barium, Total	ND	mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Beryllium, Total	ND	mg/l	0.005	0.001	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Cadmium, Total	ND	mg/l	0.005	0.001	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Calcium, Total	ND	mg/l	0.100	0.035	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Chromium, Total	ND	mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Cobalt, Total	ND	mg/l	0.020	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Copper, Total	ND	mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Iron, Total	ND	mg/l	0.050	0.009	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Lead, Total	ND	mg/l	0.010	0.003	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Magnesium, Total	ND	mg/l	0.100	0.015	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Manganese, Total	ND	mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Nickel, Total	ND	mg/l	0.025	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Potassium, Total	ND	mg/l	2.50	0.237	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis Batch Quality Control

Selenium, Total	ND	mg/l	0.010	0.004	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Silver, Total	ND	mg/l	0.007	0.003	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Sodium, Total	ND	mg/l	2.00	0.120	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Thallium, Total	ND	mg/l	0.020	0.003	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Vanadium, Total	ND	mg/l	0.010	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC
Zinc, Total	ND	mg/l	0.050	0.002	1	01/09/19 13:02	01/09/19 20:34	1,6010D	MC

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-11 Batch: WG1196160-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Antimony, Total	0.152	J	mg/kg	2.00	0.152	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Arsenic, Total	ND		mg/kg	0.400	0.083	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Barium, Total	ND		mg/kg	0.400	0.070	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Beryllium, Total	ND		mg/kg	0.200	0.013	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Cadmium, Total	ND		mg/kg	0.400	0.039	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Calcium, Total	ND		mg/kg	4.00	1.40	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Chromium, Total	ND		mg/kg	0.400	0.038	1	01/09/19 19:21	01/10/19 23:11	1,6010D	AB
Cobalt, Total	ND		mg/kg	0.800	0.066	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Copper, Total	ND		mg/kg	0.400	0.103	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Iron, Total	1.26	J	mg/kg	2.00	0.361	1	01/09/19 19:21	01/10/19 23:11	1,6010D	AB
Lead, Total	ND		mg/kg	2.00	0.107	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Magnesium, Total	ND		mg/kg	4.00	0.616	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Manganese, Total	0.396	J	mg/kg	0.400	0.064	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Nickel, Total	0.320	J	mg/kg	1.00	0.097	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Potassium, Total	ND		mg/kg	100	5.76	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Selenium, Total	ND		mg/kg	0.800	0.103	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Silver, Total	ND		mg/kg	0.400	0.113	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Sodium, Total	ND		mg/kg	80.0	1.26	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Thallium, Total	ND		mg/kg	0.800	0.126	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Vanadium, Total	ND		mg/kg	0.400	0.081	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB
Zinc, Total	ND		mg/kg	2.00	0.117	1	01/09/19 19:21	01/10/19 21:44	1,6010D	AB

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.

Project Number: 170487001

Lab Number: L1900879

Report Date: 01/18/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1195927-2 SRM Lot Number: D101-540								
Mercury, Total	70		-		65-135	-		
Total Metals - Mansfield Lab Associated sample(s): 12 Batch: WG1196029-2								
Mercury, Total	103		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12 Batch: WG1196054-2					
Aluminum, Total	96	-	80-120	-	
Antimony, Total	95	-	80-120	-	
Arsenic, Total	106	-	80-120	-	
Barium, Total	93	-	80-120	-	
Beryllium, Total	93	-	80-120	-	
Cadmium, Total	102	-	80-120	-	
Calcium, Total	98	-	80-120	-	
Chromium, Total	95	-	80-120	-	
Cobalt, Total	94	-	80-120	-	
Copper, Total	94	-	80-120	-	
Iron, Total	98	-	80-120	-	
Lead, Total	100	-	80-120	-	
Magnesium, Total	101	-	80-120	-	
Manganese, Total	91	-	80-120	-	
Nickel, Total	95	-	80-120	-	
Potassium, Total	94	-	80-120	-	
Selenium, Total	114	-	80-120	-	
Silver, Total	101	-	80-120	-	
Sodium, Total	96	-	80-120	-	
Thallium, Total	102	-	80-120	-	
Vanadium, Total	98	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12 Batch: WG1196054-2					
Zinc, Total	101	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1196160-2 SRM Lot Number: D101-540					
Aluminum, Total	67	-	50-151	-	
Antimony, Total	152	-	3-196	-	
Arsenic, Total	98	-	83-117	-	
Barium, Total	87	-	83-118	-	
Beryllium, Total	90	-	83-117	-	
Cadmium, Total	91	-	83-117	-	
Calcium, Total	85	-	81-119	-	
Chromium, Total	92	-	81-118	-	
Cobalt, Total	92	-	84-116	-	
Copper, Total	91	-	83-116	-	
Iron, Total	95	-	62-138	-	
Lead, Total	97	-	83-117	-	
Magnesium, Total	80	-	76-124	-	
Manganese, Total	87	-	82-118	-	
Nickel, Total	92	-	82-117	-	
Potassium, Total	82	-	71-130	-	
Selenium, Total	93	-	79-121	-	
Silver, Total	93	-	80-120	-	
Sodium, Total	98	-	72-127	-	
Thallium, Total	90	-	81-119	-	
Vanadium, Total	94	-	79-121	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1196160-2 SRM Lot Number: D101-540					
Zinc, Total	93	-	81-119	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1195927-3 WG1195927-4 QC Sample: L1900879-03 Client ID: RB10_33-35												
Mercury, Total	ND	0.153	0.129	84		0.126	82		80-120	2		20
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1195927-5 WG1195927-6 QC Sample: L1900879-07 Client ID: RB15_28-30												
Mercury, Total	ND	0.155	0.144	93		0.147	95		80-120	2		20
Total Metals - Mansfield Lab Associated sample(s): 12 QC Batch ID: WG1196029-3 WG1196029-4 QC Sample: L1900689-04 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.00471	94		0.00490	98		75-125	4		20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12 QC Batch ID: WG1196054-3 QC Sample: L1900487-09 Client ID: MS Sample									
Aluminum, Total	ND	2	1.95	98	-	-	75-125	-	20
Antimony, Total	ND	0.5	0.473	95	-	-	75-125	-	20
Arsenic, Total	ND	0.12	0.125	104	-	-	75-125	-	20
Barium, Total	ND	2	1.90	95	-	-	75-125	-	20
Beryllium, Total	ND	0.05	0.048	96	-	-	75-125	-	20
Cadmium, Total	ND	0.051	0.052	102	-	-	75-125	-	20
Calcium, Total	0.066J	10	9.95	100	-	-	75-125	-	20
Chromium, Total	ND	0.2	0.190	95	-	-	75-125	-	20
Cobalt, Total	ND	0.5	0.468	94	-	-	75-125	-	20
Copper, Total	ND	0.25	0.234	94	-	-	75-125	-	20
Iron, Total	0.020J	1	1.02	102	-	-	75-125	-	20
Lead, Total	ND	0.51	0.508	100	-	-	75-125	-	20
Magnesium, Total	0.033J	10	10.5	105	-	-	75-125	-	20
Manganese, Total	ND	0.5	0.460	92	-	-	75-125	-	20
Nickel, Total	ND	0.5	0.472	94	-	-	75-125	-	20
Potassium, Total	ND	10	9.69	97	-	-	75-125	-	20
Selenium, Total	ND	0.12	0.134	112	-	-	75-125	-	20
Silver, Total	ND	0.05	0.050	100	-	-	75-125	-	20
Sodium, Total	0.191J	10	9.93	99	-	-	75-125	-	20
Thallium, Total	ND	0.12	0.120	100	-	-	75-125	-	20
Vanadium, Total	ND	0.5	0.482	96	-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12 QC Batch ID: WG1196054-3 QC Sample: L1900487-09 Client ID: MS Sample									
Zinc, Total	0.007J	0.5	0.508	102	-	-	75-125	-	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits		
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1196160-3 WG1196160-4 QC Sample: L1900879-03 Client ID: RB10_33-35											
Aluminum, Total	3050	187	3450	214	Q	3410	190	Q	75-125	1	20
Antimony, Total	ND	46.7	39.0	83		40.5	86		75-125	4	20
Arsenic, Total	0.558J	11.2	11.6	103		12.3	108		75-125	6	20
Barium, Total	39.0	187	259	118		243	108		75-125	6	20
Beryllium, Total	0.123J	4.67	4.19	90		4.39	93		75-125	5	20
Cadmium, Total	ND	4.77	4.56	96		4.76	99		75-125	4	20
Calcium, Total	513	935	1420	97		1510	105		75-125	6	20
Chromium, Total	6.84	18.7	23.2	87		24.2	92		75-125	4	20
Cobalt, Total	3.57	46.7	44.7	88		46.4	90		75-125	4	20
Copper, Total	6.43	23.4	26.9	88		28.2	92		75-125	5	20
Iron, Total	7460	93.5	7510	53	Q	7790	349	Q	75-125	4	20
Lead, Total	3.85J	47.7	47.0	98		49.0	102		75-125	4	20
Magnesium, Total	1470	935	2330	92		2410	99		75-125	3	20
Manganese, Total	284	46.7	327	92		320	76		75-125	2	20
Nickel, Total	8.45	46.7	49.7	88		51.7	91		75-125	4	20
Potassium, Total	597	935	1560	103		1550	101		75-125	1	20
Selenium, Total	ND	11.2	10.7	95		11.1	98		75-125	4	20
Silver, Total	ND	28	28.1	100		29.2	103		75-125	4	20
Sodium, Total	205	935	1110	97		1150	100		75-125	4	20
Thallium, Total	ND	11.2	9.10	81		9.45	83		75-125	4	20
Vanadium, Total	8.14	46.7	51.2	92		53.5	96		75-125	4	20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1196160-3 WG1196160-4 QC Sample: L1900879-03 Client ID: RB10_33-35									
Zinc, Total	15.5	46.7	58.7	92	61.3	97	75-125	4	20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits		
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1196160-7 WG1196160-8 QC Sample: L1900879-07 Client ID: RB15_28-30											
Aluminum, Total	5550	193	5930	197	Q	6130	296	Q	75-125	3	20
Antimony, Total	1.68J	48.3	37.7	78		38.8	79		75-125	3	20
Arsenic, Total	2.08	11.6	12.8	92		13.0	93		75-125	2	20
Barium, Total	10.8	193	179	87		184	88		75-125	3	20
Beryllium, Total	0.154J	4.83	4.18	86		4.28	87		75-125	2	20
Cadmium, Total	ND	4.92	4.40	89		4.47	90		75-125	2	20
Calcium, Total	814	965	1560	77		1590	79		75-125	2	20
Chromium, Total	12.0	19.3	29.3	90		29.1	87		75-125	1	20
Cobalt, Total	5.65	48.3	45.2	82		46.3	83		75-125	2	20
Copper, Total	12.1	24.1	32.9	86		32.7	84		75-125	1	20
Iron, Total	13400	96.5	13200	0	Q	13500	102		75-125	2	20
Lead, Total	5.27	49.2	47.2	85		47.9	85		75-125	1	20
Magnesium, Total	2070	965	2880	84		2960	91		75-125	3	20
Manganese, Total	831	48.3	604	0	Q	502	0	Q	75-125	18	20
Nickel, Total	9.17	48.3	49.0	82		49.8	83		75-125	2	20
Potassium, Total	698	965	1600	93		1700	102		75-125	6	20
Selenium, Total	0.492J	11.6	10.5	91		10.6	90		75-125	1	20
Silver, Total	ND	29	28.2	97		27.9	95		75-125	1	20
Sodium, Total	150J	965	1070	111		1100	112		75-125	3	20
Thallium, Total	ND	11.6	8.45	73	Q	8.57	73	Q	75-125	1	20
Vanadium, Total	13.4	48.3	55.7	88		55.9	87		75-125	0	20

Matrix Spike Analysis
Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1196160-7 WG1196160-8 QC Sample: L1900879-07 Client ID: RB15_28-30									
Zinc, Total	24.2	48.3	66.2	87	67.5	88	75-125	2	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12 QC Batch ID: WG1196054-4 QC Sample: L1900487-09 Client ID: DUP Sample						
Aluminum, Total	ND	ND	mg/l	NC		20
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	ND	0.003J	mg/l	NC		20
Barium, Total	ND	0.002J	mg/l	NC		20
Beryllium, Total	ND	ND	mg/l	NC		20
Cadmium, Total	ND	ND	mg/l	NC		20
Calcium, Total	0.066J	0.065J	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Cobalt, Total	ND	ND	mg/l	NC		20
Copper, Total	ND	ND	mg/l	NC		20
Lead, Total	ND	ND	mg/l	NC		20
Magnesium, Total	0.033J	0.028J	mg/l	NC		20
Manganese, Total	ND	ND	mg/l	NC		20
Nickel, Total	ND	ND	mg/l	NC		20
Potassium, Total	ND	ND	mg/l	NC		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Sodium, Total	0.191J	0.289J	mg/l	NC		20
Thallium, Total	ND	ND	mg/l	NC		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12 QC Batch ID: WG1196054-4 QC Sample: L1900487-09 Client ID: DUP Sample					
Vanadium, Total	ND	ND	mg/l	NC	20
Zinc, Total	0.007J	0.006J	mg/l	NC	20
Total Metals - Mansfield Lab Associated sample(s): 12 QC Batch ID: WG1196054-4 QC Sample: L1900487-09 Client ID: DUP Sample					
Iron, Total	0.020J	0.015J	mg/l	NC	20

INORGANICS & MISCELLANEOUS

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-01
Client ID: RB10_0-2
Sample Location: BRONX, NY

Date Collected: 01/08/19 11:30
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.5		%	0.100	NA	1	-	01/09/19 12:58	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	01/09/19 11:35	01/09/19 14:04	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.884	0.177	1	01/09/19 18:00	01/10/19 18:35	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-02

Date Collected: 01/08/19 11:35

Client ID: RB10_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	72.4		%	0.100	NA	1	-	01/09/19 12:58	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.4	0.29	1	01/09/19 11:35	01/09/19 14:07	1,9010C/9012B	LH
Chromium, Hexavalent	0.663	J	mg/kg	1.10	0.221	1	01/09/19 18:00	01/10/19 18:35	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-03
Client ID: RB10_33-35
Sample Location: BRONX, NY

Date Collected: 01/08/19 11:40
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.6		%	0.100	NA	1	-	01/09/19 12:58	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.23	1	01/09/19 11:35	01/09/19 14:08	1,9010C/9012B	LH
Chromium, Hexavalent	0.363	J	mg/kg	0.968	0.194	1	01/09/19 18:00	01/10/19 18:35	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-04
Client ID: RB15_0-2
Sample Location: BRONX, NY

Date Collected: 01/08/19 13:00
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.9		%	0.100	NA	1	-	01/09/19 12:58	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.23	1	01/09/19 11:35	01/09/19 14:12	1,9010C/9012B	LH
Chromium, Hexavalent	0.284	J	mg/kg	0.910	0.182	1	01/09/19 18:00	01/10/19 18:35	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-05
Client ID: RB15_18-20
Sample Location: BRONX, NY

Date Collected: 01/08/19 13:05
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	95.8		%	0.100	NA	1	-	01/09/19 12:58	121,2540G	RI
Cyanide, Total	0.31	J	mg/kg	0.95	0.20	1	01/09/19 11:35	01/09/19 14:13	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.835	0.167	1	01/09/19 18:00	01/10/19 18:35	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-06
Client ID: RB15_23-25
Sample Location: BRONX, NY

Date Collected: 01/08/19 13:15
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.7		%	0.100	NA	1	-	01/09/19 12:58	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.25	1	01/09/19 11:35	01/09/19 14:14	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.967	0.193	1	01/09/19 18:00	01/10/19 18:35	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-07

Date Collected: 01/08/19 13:10

Client ID: RB15_28-30

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.8		%	0.100	NA	1	-	01/09/19 12:58	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.2	0.26	1	01/09/19 12:50	01/09/19 15:15	1,9010C/9012B	LH
Chromium, Hexavalent	0.718	J	mg/kg	0.990	0.198	1	01/09/19 18:00	01/10/19 18:35	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-08
Client ID: RB16_0-2
Sample Location: BRONX, NY

Date Collected: 01/08/19 10:40
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.4		%	0.100	NA	1	-	01/09/19 12:58	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	01/09/19 11:35	01/09/19 14:15	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.856	0.171	1	01/09/19 18:00	01/10/19 18:35	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-09

Date Collected: 01/08/19 10:45

Client ID: RB16_13-15

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	90.9		%	0.100	NA	1	-	01/09/19 12:58	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.0	0.22	1	01/09/19 11:35	01/09/19 14:16	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.880	0.176	1	01/09/19 18:00	01/10/19 18:35	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-10

Date Collected: 01/08/19 10:50

Client ID: RB16_18-20

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.5		%	0.100	NA	1	-	01/09/19 12:58	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.24	1	01/09/19 11:35	01/09/19 14:17	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.970	0.194	1	01/09/19 18:00	01/10/19 18:35	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**SAMPLE RESULTS**

Lab ID: L1900879-11

Date Collected: 01/08/19 00:00

Client ID: SODUP05_010819

Date Received: 01/08/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.0		%	0.100	NA	1	-	01/09/19 12:58	121,2540G	RI
Cyanide, Total	ND		mg/kg	1.1	0.23	1	01/09/19 11:35	01/09/19 14:20	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.964	0.193	1	01/09/19 18:00	01/10/19 18:35	1,7196A	AJ



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

SAMPLE RESULTS

Lab ID: L1900879-12
Client ID: SOFB04_010819
Sample Location: BRONX, NY

Date Collected: 01/08/19 10:00
Date Received: 01/08/19
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Cyanide, Total	ND		mg/l	0.005	0.001	1	01/09/19 14:35	01/10/19 13:59	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/l	0.010	0.003	1	01/09/19 03:30	01/09/19 03:46	1,7196A	MA



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 12 Batch: WG1195895-1									
Chromium, Hexavalent	ND	mg/l	0.010	0.003	1	01/09/19 03:30	01/09/19 03:45	1,7196A	MA
General Chemistry - Westborough Lab for sample(s): 01-06,08-11 Batch: WG1196013-1									
Cyanide, Total	ND	mg/kg	0.98	0.21	1	01/09/19 11:35	01/09/19 13:44	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 07 Batch: WG1196064-1									
Cyanide, Total	ND	mg/kg	0.94	0.20	1	01/09/19 12:50	01/09/19 14:59	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 12 Batch: WG1196095-1									
Cyanide, Total	ND	mg/l	0.005	0.001	1	01/09/19 02:35	01/10/19 13:19	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 01-06,08-11 Batch: WG1196213-1									
Chromium, Hexavalent	ND	mg/kg	0.800	0.160	1	01/09/19 18:00	01/10/19 18:35	1,7196A	AJ
General Chemistry - Westborough Lab for sample(s): 07 Batch: WG1196215-1									
Chromium, Hexavalent	ND	mg/kg	0.800	0.160	1	01/09/19 18:00	01/10/19 18:35	1,7196A	AJ

Lab Control Sample Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
General Chemistry - Westborough Lab Associated sample(s): 12 Batch: WG1195895-2								
Chromium, Hexavalent	95		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-06,08-11 Batch: WG1196013-2 WG1196013-3								
Cyanide, Total	50	Q	75	Q	80-120	47	Q	35
General Chemistry - Westborough Lab Associated sample(s): 07 Batch: WG1196064-2 WG1196064-3								
Cyanide, Total	112		87		80-120	39	Q	35
General Chemistry - Westborough Lab Associated sample(s): 12 Batch: WG1196095-2 WG1196095-3								
Cyanide, Total	103		101		85-115	2		20
General Chemistry - Westborough Lab Associated sample(s): 01-06,08-11 Batch: WG1196213-2								
Chromium, Hexavalent	79	Q	-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 07 Batch: WG1196215-2								
Chromium, Hexavalent	79	Q	-		80-120	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 12 QC Batch ID: WG1195895-4 QC Sample: L1900879-12 Client ID: SOFB04_010819												
Chromium, Hexavalent	ND	0.1	0.099	99	-	-	-	-	85-115	-	-	20
General Chemistry - Westborough Lab Associated sample(s): 01-06,08-11 QC Batch ID: WG1196013-4 WG1196013-5 QC Sample: L1900879-03 Client ID: RB10_33-35												
Cyanide, Total	ND	11	10	89	11	97	97	Q	75-125	10	Q	35
General Chemistry - Westborough Lab Associated sample(s): 07 QC Batch ID: WG1196064-4 WG1196064-5 QC Sample: L1900879-07 Client ID: RB15_28-30												
Cyanide, Total	ND	12	12	99	4.6	39	39	Q	75-125	89	Q	35
General Chemistry - Westborough Lab Associated sample(s): 12 QC Batch ID: WG1196095-4 WG1196095-5 QC Sample: L1900885-11 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.197	98	0.194	97	97	Q	80-120	2	Q	20
General Chemistry - Westborough Lab Associated sample(s): 01-06,08-11 QC Batch ID: WG1196213-4 WG1196213-5 QC Sample: L1900879-03 Client ID: RB10_33-35												
Chromium, Hexavalent	0.363J	952	1000	105	1020	106	106	Q	75-125	2	Q	20
General Chemistry - Westborough Lab Associated sample(s): 07 QC Batch ID: WG1196215-4 WG1196215-5 QC Sample: L1900879-07 Client ID: RB15_28-30												
Chromium, Hexavalent	0.718J	1050	827	78	1190	87	87	Q	75-125	11	Q	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 12 QC Batch ID: WG1195895-3 QC Sample: L1900879-12 Client ID: SOFB04_010819						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-11 QC Batch ID: WG1196051-1 QC Sample: L1900879-03 Client ID: RB10_33-35						
Solids, Total	82.6	82.6	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-06,08-11 QC Batch ID: WG1196213-7 QC Sample: L1900879-03 Client ID: RB10_33-35						
Chromium, Hexavalent	0.363J	0.230J	mg/kg	NC		20
General Chemistry - Westborough Lab Associated sample(s): 07 QC Batch ID: WG1196215-7 QC Sample: L1900879-07 Client ID: RB15_28-30						
Chromium, Hexavalent	0.718J	0.520J	mg/kg	NC		20

Project Name: GERARD AVE. + E. 146TH ST.**Lab Number:** L1900879**Project Number:** 170487001**Report Date:** 01/18/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900879-01A	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-01B	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-01C	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-01D	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-01E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-01F	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-01G	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-02A	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-02B	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-02C	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-02D	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-02E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-02F	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

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Project Number: 170487001

Serial_No:01181914:41
Lab Number: L1900879
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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900879-02G	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-03A	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-03A1	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-03A2	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-03B	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-03B1	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-03B2	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-03C	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-03C1	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-03C2	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-03D	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-03D1	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-03D2	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-03E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-03E1	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-03E2	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-03F	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-03F1	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900879-03F2	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-03G	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-03G1	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-03G2	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-04A	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-04B	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-04C	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-04D	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-04E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-04F	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-04G	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-05A	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-05B	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-05C	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-05D	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-05E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-05F	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

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Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900879-05G	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-06A	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-06B	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-06C	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-06D	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-06E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-06F	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-06G	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-07A	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-07A1	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-07A2	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-07B	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-07B1	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-07B2	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-07C	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-07C1	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-07C2	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-07D	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-07D1	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-07D2	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-07E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900879-07E1	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-07E2	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-07F	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-07F1	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-07F2	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-07G	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-07G1	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-07G2	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-08A	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-08B	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-08C	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-08D	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-08E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-08F	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

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Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900879-08G	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-09A	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-09B	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-09C	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-09D	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-09E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-09F	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-09G	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-10A	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-10B	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-10C	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-10D	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)
L1900879-10E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-10F	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-10G	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-11A	Vial MeOH preserved	A	NA		2.9	Y	Absent		NYTCL-8260HLW(14)
L1900879-11B	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-11C	Vial water preserved	A	NA		2.9	Y	Absent	09-JAN-19 03:32	NYTCL-8260HLW(14)
L1900879-11D	Plastic 2oz unpreserved for TS	A	NA		2.9	Y	Absent		TS(7)

Project Name: GERARD AVE. + E. 146TH ST.

Lab Number: L1900879

Project Number: 170487001

Report Date: 01/18/19

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1900879-11E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-11F	Glass 120ml/4oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-11G	Glass 500ml/16oz unpreserved	B	NA		3.2	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1900879-12A	Vial HCl preserved	C	NA		3.5	Y	Absent		NYTCL-8260(14)
L1900879-12B	Vial HCl preserved	C	NA		3.5	Y	Absent		NYTCL-8260(14)
L1900879-12C	Vial HCl preserved	C	NA		3.5	Y	Absent		NYTCL-8260(14)
L1900879-12D	Plastic 250ml HNO3 preserved	C	<2	<2	3.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1900879-12E	Plastic 250ml NaOH preserved	C	>12	>12	3.5	Y	Absent		TCN-9010(14)
L1900879-12F	Plastic 500ml unpreserved	C	7	7	3.5	Y	Absent		HEXCR-7196(1)
L1900879-12G	Amber 120ml unpreserved	C	7	7	3.5	Y	Absent		NYTCL-8082-LVI(7)
L1900879-12H	Amber 120ml unpreserved	C	7	7	3.5	Y	Absent		NYTCL-8082-LVI(7)
L1900879-12I	Amber 120ml unpreserved	C	7	7	3.5	Y	Absent		NYTCL-8081(7)
L1900879-12J	Amber 120ml unpreserved	C	7	7	3.5	Y	Absent		NYTCL-8081(7)
L1900879-12K	Amber 250ml unpreserved	C	7	7	3.5	Y	Absent		NYTCL-8270-LVI(7)
L1900879-12L	Amber 250ml unpreserved	C	7	7	3.5	Y	Absent		NYTCL-8270-LVI(7)
L1900879-12M	Amber 1000ml unpreserved	C	7	7	3.5	Y	Absent		HERB-APA(7)
L1900879-12N	Amber 1000ml unpreserved	C	7	7	3.5	Y	Absent		HERB-APA(7)
L1900879-13A	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)
L1900879-13B	Vial HCl preserved	A	NA		2.9	Y	Absent		NYTCL-8260(14)

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Report Format: DU Report with 'J' Qualifiers



Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

Lab Number: L1900879
Report Date: 01/18/19

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedances are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Project Name: GERARD AVE. + E. 146TH ST.
Project Number: 170487001

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Report Date: 01/18/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.

EPA 522.

Non-Potable Water


EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 ALPHA ANALYTICAL <small>ANALYTICAL LABORATORIES</small>	NEW YORK CHAIN OF CUSTODY	<u>Service Centers</u> Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page	Date Rec'd in Lab	ALPHA Job #										
			1 of 2	1/9/19	21900879										
Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Project Information Project Name: Gerard Ave. + E. 146th St. Project Location: Bronx NY Project # 170487001 (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input checked="" type="checkbox"/> ASPA ¹⁻⁸⁻¹⁹ <input type="checkbox"/> EQulS (1 File) <input checked="" type="checkbox"/> EQulS (4 File) <input type="checkbox"/> Other	Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #										
Client Information Client: Langan Engineering Address: 21 Penn Plaza, 360 W. 31st St 8th Fl., NY, NY 10001-2727 Phone: (212) 479-5400 Fax: (212) 479-5444 Email: jleung@langan.com		Project Manager: Julia Leung ALPHAQuote #:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:									
These samples have been previously analyzed by Alpha <input type="checkbox"/>		Turn-Around Time Standard <input checked="" type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)									
Other project specific requirements/comments: Please also cc: datamanagement@langan.com and vzuluaga@langan.com Please specify Metals or TAL.						Total Bottles									
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials		Part 375/TCL VOCs	Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hexavalent Chromium	Total Cyanide	Sample Specific Comments
		Date	Time												
00879-01	RB10_0-2	1/8/19	1130	Soil	JL		X	X	X	X	X	X	X	X	
-02	RB10_18-20		1135		JL										
-03	RB10_33-35		1140		JL										MS/MSD collected
-04	RB15_0-2		1300		JL										
-05	RB15_18-20		1305		JL										
-06	RB15_23-25		1315		JL										
-07	RB15_28-30		1310		JL										MS/MSD collected
-08	RB16_0-2		1040		JL										
-09	RB16_13-15		1045		JL										
-10	RB16_18-20		1050		JL										
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type		Preservative						Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
				Relinquished By: <i>Julia Leung</i> Date/Time: 1/8/19 - 4:45 PM		Received By: <i>Paul Mayella</i> Date/Time: 1/8/19 1645									
				Relinquished By: <i>Paul Mayella</i> Date/Time: 1/9/19 00345		Received By: <i>Julia Leung</i> Date/Time: 1/9/19 0045									

 NEW YORK CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page	Date Rec'd in Lab				ALPHA Job #																																																													
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Other project specific requirements/comments: Please also cc: datamanagement@langan.com and vzuluaga@langan.com Please specify Metals or TAL.		<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">ALPHA Lab ID (Lab Use Only)</th> <th rowspan="2">Sample ID</th> <th colspan="2">Collection</th> <th rowspan="2">Sample Matrix</th> <th rowspan="2">Sampler's Initials</th> <th rowspan="2">Part 375/TCL VOCs</th> <th rowspan="2">Part 375/TCL SVOCs</th> <th rowspan="2">Part 375/TCL PCBs</th> <th rowspan="2">Pesticides</th> <th rowspan="2">Herbicides</th> <th rowspan="2">TAL Metals</th> <th rowspan="2">Hexavalent Chromium</th> <th rowspan="2">Total Cyanide</th> <th rowspan="2">Sample Specific Comments</th> </tr> <tr> <th>Date</th> <th>Time</th> </tr> </thead> <tbody> <tr> <td>06879-11</td> <td>SODUP05_010819</td> <td>1/8/19</td> <td>-</td> <td>Soil</td> <td>JL</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>-12</td> <td>SOFB04_010819</td> <td>↓</td> <td>1000</td> <td>AQ</td> <td>SA</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td>X</td> <td></td> </tr> <tr> <td>-13</td> <td>SOTB07_010819</td> <td>-</td> <td>-</td> <td>AQ</td> <td>SA</td> <td>X</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	Part 375/TCL VOCs	Part 375/TCL SVOCs	Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hexavalent Chromium	Total Cyanide	Sample Specific Comments	Date	Time	06879-11	SODUP05_010819	1/8/19	-	Soil	JL	X	X	X	X	X	X	X	X		-12	SOFB04_010819	↓	1000	AQ	SA	X	X	X	X	X	X	X	X		-13	SOTB07_010819	-	-	AQ	SA	X									Total Bottles
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials			Part 375/TCL VOCs	Part 375/TCL SVOCs												Part 375/TCL PCBs	Pesticides	Herbicides	TAL Metals	Hexavalent Chromium	Total Cyanide	Sample Specific Comments																																									
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06879-11	SODUP05_010819	1/8/19	-	Soil	JL	X	X	X	X	X	X	X	X																																																							
-12	SOFB04_010819	↓	1000	AQ	SA	X	X	X	X	X	X	X	X																																																							
-13	SOTB07_010819	-	-	AQ	SA	X																																																														
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)																																																												
		Relinquished By:		Date/Time		Received By:		Date/Time																																																												
		[Signature]		1/8/19 - 4:45 PM		[Signature]		1/8/19 16:45																																																												
		[Signature]		1/19/19 19:00		[Signature]		1/18/19 20:00																																																												
		[Signature]		1/19/19 00:45		[Signature]		1/19/19 00:45																																																												



ANALYTICAL REPORT

Lab Number:	L1930096
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	404 EXTERIOR STREET
Project Number:	170487001
Report Date:	07/29/19

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1930096-01	RB24_0-2	SOIL	BRONX, NY	07/10/19 11:45	07/10/19
L1930096-02	RB24_8-10	SOIL	BRONX, NY	07/10/19 11:55	07/10/19
L1930096-03	RB24_13-15	SOIL	BRONX, NY	07/10/19 12:15	07/10/19
L1930096-04	RB26_0-2	SOIL	BRONX, NY	07/10/19 12:45	07/10/19
L1930096-05	RB26_10-12	SOIL	BRONX, NY	07/10/19 13:00	07/10/19
L1930096-06	RB26_14-16	SOIL	BRONX, NY	07/10/19 13:05	07/10/19
L1930096-07	RB23_0-2	SOIL	BRONX, NY	07/10/19 13:55	07/10/19
L1930096-08	RB23_10-12	SOIL	BRONX, NY	07/10/19 14:05	07/10/19
L1930096-09	RB23_13-15	SOIL	BRONX, NY	07/10/19 14:10	07/10/19
L1930096-10	SOFB05_071019	WATER	BRONX, NY	07/10/19 14:50	07/10/19
L1930096-11	SOTB06_071019	WATER	BRONX, NY	07/10/19 00:00	07/10/19

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Case Narrative (continued)

Report Submission

July 29, 2019: This final report includes the results of all requested analyses.

July 12, 2019: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

L1930096-10: The collection date and time on the chain of custody was 10-JUL-19 14:55; however, the collection date/time on the container label was 10-JUL-19 14:50. At the client's request, the collection date/time is reported as 10-JUL-19 14:50.

L1930096-10: Only the analysis of PFAs was performed, at the client's request.

Volatile Organics

L1930096-04 and -07: The surrogate recovery is below the acceptance criteria for dibromofluoromethane (62% and 68%, respectively), possibly due to the matrix effect caused by the high pH of the sample (>10).

Perfluorinated Alkyl Acids by Isotope Dilution

WG1263769-1: The continuing calibration standard had the response for 1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS) outside the acceptance criteria for the method. This value represents less than 10% of all compounds; therefore, the calibration was accepted.

WG1264962-3: The continuing calibration standard had the response for 8:2FTS and NMeFOSAA outside the acceptance criteria for the method. This value represents less than 10% of all compounds; therefore, the calibration was accepted.

Total Metals

L1930096-01 through -09: The sample has elevated detection limits for all elements, with the exception of

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Case Narrative (continued)

mercury, due to the dilution required by matrix interferences encountered during analysis.

Cyanide, Total

The WG1258510-2 LCS recovery (61%), associated with L1930096-01 through -09, is outside our in-house acceptance criteria, but within the vendor-certified acceptance limits. The results of the original analyses are reported.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Amita Naik

Title: Technical Director/Representative

Date: 07/29/19

ORGANICS

VOLATILES

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01
 Client ID: RB24_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 07/11/19 08:09
 Analyst: JC
 Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	8.8	4.0	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.25	1
Chloroform	ND		ug/kg	2.6	0.24	1
Carbon tetrachloride	ND		ug/kg	1.8	0.40	1
1,2-Dichloropropane	ND		ug/kg	1.8	0.22	1
Dibromochloromethane	ND		ug/kg	1.8	0.24	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.47	1
Tetrachloroethene	ND		ug/kg	0.88	0.34	1
Chlorobenzene	ND		ug/kg	0.88	0.22	1
Trichlorofluoromethane	ND		ug/kg	7.0	1.2	1
1,2-Dichloroethane	ND		ug/kg	1.8	0.45	1
1,1,1-Trichloroethane	ND		ug/kg	0.88	0.29	1
Bromodichloromethane	ND		ug/kg	0.88	0.19	1
trans-1,3-Dichloropropene	ND		ug/kg	1.8	0.48	1
cis-1,3-Dichloropropene	ND		ug/kg	0.88	0.28	1
1,3-Dichloropropene, Total	ND		ug/kg	0.88	0.28	1
1,1-Dichloropropene	ND		ug/kg	0.88	0.28	1
Bromoform	ND		ug/kg	7.0	0.43	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.88	0.29	1
Benzene	ND		ug/kg	0.88	0.29	1
Toluene	ND		ug/kg	1.8	0.95	1
Ethylbenzene	ND		ug/kg	1.8	0.25	1
Chloromethane	ND		ug/kg	7.0	1.6	1
Bromomethane	ND		ug/kg	3.5	1.0	1
Vinyl chloride	ND		ug/kg	1.8	0.59	1
Chloroethane	ND		ug/kg	3.5	0.79	1
1,1-Dichloroethene	ND		ug/kg	1.8	0.42	1
trans-1,2-Dichloroethene	ND		ug/kg	2.6	0.24	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01
Client ID: RB24_0-2
Sample Location: BRONX, NY

Date Collected: 07/10/19 11:45
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.88	0.24	1
1,2-Dichlorobenzene	ND		ug/kg	3.5	0.25	1
1,3-Dichlorobenzene	ND		ug/kg	3.5	0.26	1
1,4-Dichlorobenzene	ND		ug/kg	3.5	0.30	1
Methyl tert butyl ether	ND		ug/kg	3.5	0.35	1
p/m-Xylene	ND		ug/kg	3.5	0.98	1
o-Xylene	ND		ug/kg	1.8	0.51	1
Xylenes, Total	ND		ug/kg	1.8	0.51	1
cis-1,2-Dichloroethene	ND		ug/kg	1.8	0.31	1
1,2-Dichloroethene, Total	ND		ug/kg	1.8	0.24	1
Dibromomethane	ND		ug/kg	3.5	0.42	1
Styrene	ND		ug/kg	1.8	0.34	1
Dichlorodifluoromethane	ND		ug/kg	18	1.6	1
Acetone	ND		ug/kg	18	8.4	1
Carbon disulfide	ND		ug/kg	18	8.0	1
2-Butanone	ND		ug/kg	18	3.9	1
Vinyl acetate	ND		ug/kg	18	3.8	1
4-Methyl-2-pentanone	ND		ug/kg	18	2.2	1
1,2,3-Trichloropropane	ND		ug/kg	3.5	0.22	1
2-Hexanone	ND		ug/kg	18	2.1	1
Bromochloromethane	ND		ug/kg	3.5	0.36	1
2,2-Dichloropropane	ND		ug/kg	3.5	0.35	1
1,2-Dibromoethane	ND		ug/kg	1.8	0.49	1
1,3-Dichloropropane	ND		ug/kg	3.5	0.29	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.88	0.23	1
Bromobenzene	ND		ug/kg	3.5	0.25	1
n-Butylbenzene	ND		ug/kg	1.8	0.29	1
sec-Butylbenzene	ND		ug/kg	1.8	0.26	1
tert-Butylbenzene	ND		ug/kg	3.5	0.21	1
o-Chlorotoluene	ND		ug/kg	3.5	0.33	1
p-Chlorotoluene	ND		ug/kg	3.5	0.19	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.2	1.7	1
Hexachlorobutadiene	ND		ug/kg	7.0	0.30	1
Isopropylbenzene	ND		ug/kg	1.8	0.19	1
p-Isopropyltoluene	ND		ug/kg	1.8	0.19	1
Naphthalene	ND		ug/kg	7.0	1.1	1
Acrylonitrile	ND		ug/kg	7.0	2.0	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01
Client ID: RB24_0-2
Sample Location: BRONX, NY

Date Collected: 07/10/19 11:45
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.8	0.30	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.5	0.56	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.5	0.48	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.5	0.34	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.5	0.58	1
1,4-Dioxane	ND		ug/kg	140	62.	1
p-Diethylbenzene	ND		ug/kg	3.5	0.31	1
p-Ethyltoluene	ND		ug/kg	3.5	0.67	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.5	0.33	1
Ethyl ether	ND		ug/kg	3.5	0.60	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.8	2.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	115		70-130
Dibromofluoromethane	99		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02
 Client ID: RB24_8-10
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 07/11/19 08:36
 Analyst: JC
 Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.6	2.1	1
1,1-Dichloroethane	ND		ug/kg	0.92	0.13	1
Chloroform	ND		ug/kg	1.4	0.13	1
Carbon tetrachloride	ND		ug/kg	0.92	0.21	1
1,2-Dichloropropane	ND		ug/kg	0.92	0.12	1
Dibromochloromethane	ND		ug/kg	0.92	0.13	1
1,1,2-Trichloroethane	ND		ug/kg	0.92	0.24	1
Tetrachloroethene	ND		ug/kg	0.46	0.18	1
Chlorobenzene	ND		ug/kg	0.46	0.12	1
Trichlorofluoromethane	ND		ug/kg	3.7	0.64	1
1,2-Dichloroethane	ND		ug/kg	0.92	0.24	1
1,1,1-Trichloroethane	ND		ug/kg	0.46	0.15	1
Bromodichloromethane	ND		ug/kg	0.46	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.92	0.25	1
cis-1,3-Dichloropropene	ND		ug/kg	0.46	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.46	0.14	1
1,1-Dichloropropene	ND		ug/kg	0.46	0.15	1
Bromoform	ND		ug/kg	3.7	0.23	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.46	0.15	1
Benzene	0.19	J	ug/kg	0.46	0.15	1
Toluene	0.87	J	ug/kg	0.92	0.50	1
Ethylbenzene	ND		ug/kg	0.92	0.13	1
Chloromethane	ND		ug/kg	3.7	0.86	1
Bromomethane	ND		ug/kg	1.8	0.54	1
Vinyl chloride	ND		ug/kg	0.92	0.31	1
Chloroethane	ND		ug/kg	1.8	0.42	1
1,1-Dichloroethene	ND		ug/kg	0.92	0.22	1
trans-1,2-Dichloroethene	ND		ug/kg	1.4	0.13	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02
Client ID: RB24_8-10
Sample Location: BRONX, NY

Date Collected: 07/10/19 11:55
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.46	0.13	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	0.14	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	0.16	1
Methyl tert butyl ether	ND		ug/kg	1.8	0.18	1
p/m-Xylene	ND		ug/kg	1.8	0.52	1
o-Xylene	ND		ug/kg	0.92	0.27	1
Xylenes, Total	ND		ug/kg	0.92	0.27	1
cis-1,2-Dichloroethene	ND		ug/kg	0.92	0.16	1
1,2-Dichloroethene, Total	ND		ug/kg	0.92	0.13	1
Dibromomethane	ND		ug/kg	1.8	0.22	1
Styrene	ND		ug/kg	0.92	0.18	1
Dichlorodifluoromethane	ND		ug/kg	9.2	0.84	1
Acetone	18		ug/kg	9.2	4.4	1
Carbon disulfide	ND		ug/kg	9.2	4.2	1
2-Butanone	ND		ug/kg	9.2	2.0	1
Vinyl acetate	ND		ug/kg	9.2	2.0	1
4-Methyl-2-pentanone	ND		ug/kg	9.2	1.2	1
1,2,3-Trichloropropane	ND		ug/kg	1.8	0.12	1
2-Hexanone	ND		ug/kg	9.2	1.1	1
Bromochloromethane	ND		ug/kg	1.8	0.19	1
2,2-Dichloropropane	ND		ug/kg	1.8	0.19	1
1,2-Dibromoethane	ND		ug/kg	0.92	0.26	1
1,3-Dichloropropane	ND		ug/kg	1.8	0.15	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.46	0.12	1
Bromobenzene	ND		ug/kg	1.8	0.13	1
n-Butylbenzene	ND		ug/kg	0.92	0.15	1
sec-Butylbenzene	ND		ug/kg	0.92	0.13	1
tert-Butylbenzene	ND		ug/kg	1.8	0.11	1
o-Chlorotoluene	ND		ug/kg	1.8	0.18	1
p-Chlorotoluene	ND		ug/kg	1.8	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.8	0.92	1
Hexachlorobutadiene	ND		ug/kg	3.7	0.16	1
Isopropylbenzene	ND		ug/kg	0.92	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.92	0.10	1
Naphthalene	ND		ug/kg	3.7	0.60	1
Acrylonitrile	ND		ug/kg	3.7	1.0	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02
Client ID: RB24_8-10
Sample Location: BRONX, NY

Date Collected: 07/10/19 11:55
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.92	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	0.30	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	0.25	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	0.31	1
1,4-Dioxane	ND		ug/kg	74	32.	1
p-Diethylbenzene	ND		ug/kg	1.8	0.16	1
p-Ethyltoluene	ND		ug/kg	1.8	0.35	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.8	0.18	1
Ethyl ether	ND		ug/kg	1.8	0.31	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.6	1.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	101		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03
 Client ID: RB24_13-15
 Sample Location: BRONX, NY

Date Collected: 07/10/19 12:15
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 07/11/19 09:03
 Analyst: JC
 Percent Solids: 66%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	7.4	3.4	1
1,1-Dichloroethane	ND		ug/kg	1.5	0.22	1
Chloroform	ND		ug/kg	2.2	0.21	1
Carbon tetrachloride	ND		ug/kg	1.5	0.34	1
1,2-Dichloropropane	ND		ug/kg	1.5	0.19	1
Dibromochloromethane	ND		ug/kg	1.5	0.21	1
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.40	1
Tetrachloroethene	ND		ug/kg	0.74	0.29	1
Chlorobenzene	ND		ug/kg	0.74	0.19	1
Trichlorofluoromethane	ND		ug/kg	6.0	1.0	1
1,2-Dichloroethane	ND		ug/kg	1.5	0.38	1
1,1,1-Trichloroethane	ND		ug/kg	0.74	0.25	1
Bromodichloromethane	ND		ug/kg	0.74	0.16	1
trans-1,3-Dichloropropene	ND		ug/kg	1.5	0.41	1
cis-1,3-Dichloropropene	ND		ug/kg	0.74	0.24	1
1,3-Dichloropropene, Total	ND		ug/kg	0.74	0.24	1
1,1-Dichloropropene	ND		ug/kg	0.74	0.24	1
Bromoform	ND		ug/kg	6.0	0.37	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.74	0.25	1
Benzene	ND		ug/kg	0.74	0.25	1
Toluene	ND		ug/kg	1.5	0.81	1
Ethylbenzene	ND		ug/kg	1.5	0.21	1
Chloromethane	ND		ug/kg	6.0	1.4	1
Bromomethane	ND		ug/kg	3.0	0.87	1
Vinyl chloride	ND		ug/kg	1.5	0.50	1
Chloroethane	ND		ug/kg	3.0	0.67	1
1,1-Dichloroethene	ND		ug/kg	1.5	0.35	1
trans-1,2-Dichloroethene	ND		ug/kg	2.2	0.20	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03
Client ID: RB24_13-15
Sample Location: BRONX, NY

Date Collected: 07/10/19 12:15
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.74	0.20	1
1,2-Dichlorobenzene	ND		ug/kg	3.0	0.21	1
1,3-Dichlorobenzene	ND		ug/kg	3.0	0.22	1
1,4-Dichlorobenzene	ND		ug/kg	3.0	0.25	1
Methyl tert butyl ether	ND		ug/kg	3.0	0.30	1
p/m-Xylene	ND		ug/kg	3.0	0.83	1
o-Xylene	ND		ug/kg	1.5	0.43	1
Xylenes, Total	ND		ug/kg	1.5	0.43	1
cis-1,2-Dichloroethene	ND		ug/kg	1.5	0.26	1
1,2-Dichloroethene, Total	ND		ug/kg	1.5	0.20	1
Dibromomethane	ND		ug/kg	3.0	0.35	1
Styrene	ND		ug/kg	1.5	0.29	1
Dichlorodifluoromethane	ND		ug/kg	15	1.4	1
Acetone	27		ug/kg	15	7.2	1
Carbon disulfide	ND		ug/kg	15	6.8	1
2-Butanone	ND		ug/kg	15	3.3	1
Vinyl acetate	ND		ug/kg	15	3.2	1
4-Methyl-2-pentanone	ND		ug/kg	15	1.9	1
1,2,3-Trichloropropane	ND		ug/kg	3.0	0.19	1
2-Hexanone	ND		ug/kg	15	1.8	1
Bromochloromethane	ND		ug/kg	3.0	0.30	1
2,2-Dichloropropane	ND		ug/kg	3.0	0.30	1
1,2-Dibromoethane	ND		ug/kg	1.5	0.42	1
1,3-Dichloropropane	ND		ug/kg	3.0	0.25	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.74	0.20	1
Bromobenzene	ND		ug/kg	3.0	0.22	1
n-Butylbenzene	ND		ug/kg	1.5	0.25	1
sec-Butylbenzene	ND		ug/kg	1.5	0.22	1
tert-Butylbenzene	ND		ug/kg	3.0	0.18	1
o-Chlorotoluene	ND		ug/kg	3.0	0.28	1
p-Chlorotoluene	ND		ug/kg	3.0	0.16	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	4.5	1.5	1
Hexachlorobutadiene	ND		ug/kg	6.0	0.25	1
Isopropylbenzene	ND		ug/kg	1.5	0.16	1
p-Isopropyltoluene	ND		ug/kg	1.5	0.16	1
Naphthalene	ND		ug/kg	6.0	0.97	1
Acrylonitrile	ND		ug/kg	6.0	1.7	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03
Client ID: RB24_13-15
Sample Location: BRONX, NY

Date Collected: 07/10/19 12:15
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.5	0.25	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.0	0.48	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.0	0.40	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.0	0.29	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.0	0.50	1
1,4-Dioxane	ND		ug/kg	120	52.	1
p-Diethylbenzene	ND		ug/kg	3.0	0.26	1
p-Ethyltoluene	ND		ug/kg	3.0	0.57	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.0	0.28	1
Ethyl ether	ND		ug/kg	3.0	0.51	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	7.4	2.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	100		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04
 Client ID: RB26_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 12:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 07/11/19 09:29
 Analyst: JC
 Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	6.0	2.8	1
1,1-Dichloroethane	ND		ug/kg	1.2	0.18	1
Chloroform	ND		ug/kg	1.8	0.17	1
Carbon tetrachloride	ND		ug/kg	1.2	0.28	1
1,2-Dichloropropane	ND		ug/kg	1.2	0.15	1
Dibromochloromethane	ND		ug/kg	1.2	0.17	1
1,1,2-Trichloroethane	ND		ug/kg	1.2	0.32	1
Tetrachloroethene	ND		ug/kg	0.60	0.24	1
Chlorobenzene	ND		ug/kg	0.60	0.15	1
Trichlorofluoromethane	ND		ug/kg	4.8	0.84	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.31	1
1,1,1-Trichloroethane	ND		ug/kg	0.60	0.20	1
Bromodichloromethane	ND		ug/kg	0.60	0.13	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.33	1
cis-1,3-Dichloropropene	ND		ug/kg	0.60	0.19	1
1,3-Dichloropropene, Total	ND		ug/kg	0.60	0.19	1
1,1-Dichloropropene	ND		ug/kg	0.60	0.19	1
Bromoform	ND		ug/kg	4.8	0.30	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.60	0.20	1
Benzene	ND		ug/kg	0.60	0.20	1
Toluene	ND		ug/kg	1.2	0.66	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	4.8	1.1	1
Bromomethane	ND		ug/kg	2.4	0.70	1
Vinyl chloride	ND		ug/kg	1.2	0.40	1
Chloroethane	ND		ug/kg	2.4	0.55	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.29	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.16	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04
Client ID: RB26_0-2
Sample Location: BRONX, NY

Date Collected: 07/10/19 12:45
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.60	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.4	0.17	1
1,3-Dichlorobenzene	ND		ug/kg	2.4	0.18	1
1,4-Dichlorobenzene	ND		ug/kg	2.4	0.21	1
Methyl tert butyl ether	ND		ug/kg	2.4	0.24	1
p/m-Xylene	ND		ug/kg	2.4	0.68	1
o-Xylene	ND		ug/kg	1.2	0.35	1
Xylenes, Total	ND		ug/kg	1.2	0.35	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.21	1
1,2-Dichloroethene, Total	ND		ug/kg	1.2	0.16	1
Dibromomethane	ND		ug/kg	2.4	0.29	1
Styrene	ND		ug/kg	1.2	0.24	1
Dichlorodifluoromethane	ND		ug/kg	12	1.1	1
Acetone	14		ug/kg	12	5.8	1
Carbon disulfide	ND		ug/kg	12	5.5	1
2-Butanone	ND		ug/kg	12	2.7	1
Vinyl acetate	ND		ug/kg	12	2.6	1
4-Methyl-2-pentanone	ND		ug/kg	12	1.5	1
1,2,3-Trichloropropane	ND		ug/kg	2.4	0.15	1
2-Hexanone	ND		ug/kg	12	1.4	1
Bromochloromethane	ND		ug/kg	2.4	0.25	1
2,2-Dichloropropane	ND		ug/kg	2.4	0.24	1
1,2-Dibromoethane	ND		ug/kg	1.2	0.34	1
1,3-Dichloropropane	ND		ug/kg	2.4	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.60	0.16	1
Bromobenzene	ND		ug/kg	2.4	0.18	1
n-Butylbenzene	ND		ug/kg	1.2	0.20	1
sec-Butylbenzene	ND		ug/kg	1.2	0.18	1
tert-Butylbenzene	ND		ug/kg	2.4	0.14	1
o-Chlorotoluene	ND		ug/kg	2.4	0.23	1
p-Chlorotoluene	ND		ug/kg	2.4	0.13	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.6	1.2	1
Hexachlorobutadiene	ND		ug/kg	4.8	0.20	1
Isopropylbenzene	ND		ug/kg	1.2	0.13	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.13	1
Naphthalene	ND		ug/kg	4.8	0.79	1
Acrylonitrile	ND		ug/kg	4.8	1.4	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04
Client ID: RB26_0-2
Sample Location: BRONX, NY

Date Collected: 07/10/19 12:45
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.2	0.21	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.4	0.39	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.4	0.33	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.4	0.23	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.4	0.40	1
1,4-Dioxane	ND		ug/kg	97	42.	1
p-Diethylbenzene	ND		ug/kg	2.4	0.21	1
p-Ethyltoluene	ND		ug/kg	2.4	0.46	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.4	0.23	1
Ethyl ether	ND		ug/kg	2.4	0.41	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.0	1.7	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	116		70-130
Dibromofluoromethane	62	Q	70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05
 Client ID: RB26_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:00
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 07/11/19 09:56
 Analyst: JC
 Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	4.4	2.0	1
1,1-Dichloroethane	ND		ug/kg	0.88	0.13	1
Chloroform	ND		ug/kg	1.3	0.12	1
Carbon tetrachloride	ND		ug/kg	0.88	0.20	1
1,2-Dichloropropane	ND		ug/kg	0.88	0.11	1
Dibromochloromethane	ND		ug/kg	0.88	0.12	1
1,1,2-Trichloroethane	ND		ug/kg	0.88	0.23	1
Tetrachloroethene	ND		ug/kg	0.44	0.17	1
Chlorobenzene	ND		ug/kg	0.44	0.11	1
Trichlorofluoromethane	ND		ug/kg	3.5	0.61	1
1,2-Dichloroethane	ND		ug/kg	0.88	0.22	1
1,1,1-Trichloroethane	ND		ug/kg	0.44	0.15	1
Bromodichloromethane	ND		ug/kg	0.44	0.10	1
trans-1,3-Dichloropropene	ND		ug/kg	0.88	0.24	1
cis-1,3-Dichloropropene	ND		ug/kg	0.44	0.14	1
1,3-Dichloropropene, Total	ND		ug/kg	0.44	0.14	1
1,1-Dichloropropene	ND		ug/kg	0.44	0.14	1
Bromoform	ND		ug/kg	3.5	0.22	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.44	0.14	1
Benzene	0.14	J	ug/kg	0.44	0.14	1
Toluene	0.62	J	ug/kg	0.88	0.48	1
Ethylbenzene	ND		ug/kg	0.88	0.12	1
Chloromethane	ND		ug/kg	3.5	0.82	1
Bromomethane	ND		ug/kg	1.8	0.51	1
Vinyl chloride	ND		ug/kg	0.88	0.29	1
Chloroethane	ND		ug/kg	1.8	0.40	1
1,1-Dichloroethene	ND		ug/kg	0.88	0.21	1
trans-1,2-Dichloroethene	ND		ug/kg	1.3	0.12	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05
Client ID: RB26_10-12
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:00
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.44	0.12	1
1,2-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,3-Dichlorobenzene	ND		ug/kg	1.8	0.13	1
1,4-Dichlorobenzene	ND		ug/kg	1.8	0.15	1
Methyl tert butyl ether	ND		ug/kg	1.8	0.18	1
p/m-Xylene	ND		ug/kg	1.8	0.49	1
o-Xylene	ND		ug/kg	0.88	0.26	1
Xylenes, Total	ND		ug/kg	0.88	0.26	1
cis-1,2-Dichloroethene	ND		ug/kg	0.88	0.15	1
1,2-Dichloroethene, Total	ND		ug/kg	0.88	0.12	1
Dibromomethane	ND		ug/kg	1.8	0.21	1
Styrene	ND		ug/kg	0.88	0.17	1
Dichlorodifluoromethane	ND		ug/kg	8.8	0.80	1
Acetone	4.9	J	ug/kg	8.8	4.2	1
Carbon disulfide	ND		ug/kg	8.8	4.0	1
2-Butanone	ND		ug/kg	8.8	2.0	1
Vinyl acetate	ND		ug/kg	8.8	1.9	1
4-Methyl-2-pentanone	ND		ug/kg	8.8	1.1	1
1,2,3-Trichloropropane	ND		ug/kg	1.8	0.11	1
2-Hexanone	ND		ug/kg	8.8	1.0	1
Bromochloromethane	ND		ug/kg	1.8	0.18	1
2,2-Dichloropropane	ND		ug/kg	1.8	0.18	1
1,2-Dibromoethane	ND		ug/kg	0.88	0.24	1
1,3-Dichloropropane	ND		ug/kg	1.8	0.15	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.44	0.12	1
Bromobenzene	ND		ug/kg	1.8	0.13	1
n-Butylbenzene	ND		ug/kg	0.88	0.15	1
sec-Butylbenzene	ND		ug/kg	0.88	0.13	1
tert-Butylbenzene	ND		ug/kg	1.8	0.10	1
o-Chlorotoluene	ND		ug/kg	1.8	0.17	1
p-Chlorotoluene	ND		ug/kg	1.8	0.10	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	2.6	0.88	1
Hexachlorobutadiene	ND		ug/kg	3.5	0.15	1
Isopropylbenzene	ND		ug/kg	0.88	0.10	1
p-Isopropyltoluene	ND		ug/kg	0.88	0.10	1
Naphthalene	ND		ug/kg	3.5	0.57	1
Acrylonitrile	ND		ug/kg	3.5	1.0	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05
Client ID: RB26_10-12
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:00
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	0.88	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	1.8	0.28	1
1,2,4-Trichlorobenzene	ND		ug/kg	1.8	0.24	1
1,3,5-Trimethylbenzene	ND		ug/kg	1.8	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	1.8	0.29	1
1,4-Dioxane	ND		ug/kg	70	31.	1
p-Diethylbenzene	ND		ug/kg	1.8	0.16	1
p-Ethyltoluene	ND		ug/kg	1.8	0.34	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	1.8	0.17	1
Ethyl ether	ND		ug/kg	1.8	0.30	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	4.4	1.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	117		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	100		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06
 Client ID: RB26_14-16
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 07/11/19 10:23
 Analyst: JC
 Percent Solids: 60%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	8.3	3.8	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.24	1
Chloroform	ND		ug/kg	2.5	0.23	1
Carbon tetrachloride	ND		ug/kg	1.7	0.38	1
1,2-Dichloropropane	ND		ug/kg	1.7	0.21	1
Dibromochloromethane	ND		ug/kg	1.7	0.23	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.44	1
Tetrachloroethene	ND		ug/kg	0.83	0.33	1
Chlorobenzene	ND		ug/kg	0.83	0.21	1
Trichlorofluoromethane	ND		ug/kg	6.7	1.2	1
1,2-Dichloroethane	ND		ug/kg	1.7	0.43	1
1,1,1-Trichloroethane	ND		ug/kg	0.83	0.28	1
Bromodichloromethane	ND		ug/kg	0.83	0.18	1
trans-1,3-Dichloropropene	ND		ug/kg	1.7	0.45	1
cis-1,3-Dichloropropene	ND		ug/kg	0.83	0.26	1
1,3-Dichloropropene, Total	ND		ug/kg	0.83	0.26	1
1,1-Dichloropropene	ND		ug/kg	0.83	0.26	1
Bromoform	ND		ug/kg	6.7	0.41	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.83	0.28	1
Benzene	ND		ug/kg	0.83	0.28	1
Toluene	ND		ug/kg	1.7	0.90	1
Ethylbenzene	ND		ug/kg	1.7	0.23	1
Chloromethane	ND		ug/kg	6.7	1.6	1
Bromomethane	ND		ug/kg	3.3	0.97	1
Vinyl chloride	ND		ug/kg	1.7	0.56	1
Chloroethane	ND		ug/kg	3.3	0.75	1
1,1-Dichloroethene	ND		ug/kg	1.7	0.40	1
trans-1,2-Dichloroethene	ND		ug/kg	2.5	0.23	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06
Client ID: RB26_14-16
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:05
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.83	0.23	1
1,2-Dichlorobenzene	ND		ug/kg	3.3	0.24	1
1,3-Dichlorobenzene	ND		ug/kg	3.3	0.25	1
1,4-Dichlorobenzene	ND		ug/kg	3.3	0.28	1
Methyl tert butyl ether	ND		ug/kg	3.3	0.33	1
p/m-Xylene	ND		ug/kg	3.3	0.93	1
o-Xylene	ND		ug/kg	1.7	0.48	1
Xylenes, Total	ND		ug/kg	1.7	0.48	1
cis-1,2-Dichloroethene	ND		ug/kg	1.7	0.29	1
1,2-Dichloroethene, Total	ND		ug/kg	1.7	0.23	1
Dibromomethane	ND		ug/kg	3.3	0.40	1
Styrene	ND		ug/kg	1.7	0.33	1
Dichlorodifluoromethane	ND		ug/kg	17	1.5	1
Acetone	150		ug/kg	17	8.0	1
Carbon disulfide	11	J	ug/kg	17	7.6	1
2-Butanone	8.4	J	ug/kg	17	3.7	1
Vinyl acetate	ND		ug/kg	17	3.6	1
4-Methyl-2-pentanone	ND		ug/kg	17	2.1	1
1,2,3-Trichloropropane	ND		ug/kg	3.3	0.21	1
2-Hexanone	ND		ug/kg	17	2.0	1
Bromochloromethane	ND		ug/kg	3.3	0.34	1
2,2-Dichloropropane	ND		ug/kg	3.3	0.34	1
1,2-Dibromoethane	ND		ug/kg	1.7	0.46	1
1,3-Dichloropropane	ND		ug/kg	3.3	0.28	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.83	0.22	1
Bromobenzene	ND		ug/kg	3.3	0.24	1
n-Butylbenzene	ND		ug/kg	1.7	0.28	1
sec-Butylbenzene	ND		ug/kg	1.7	0.24	1
tert-Butylbenzene	ND		ug/kg	3.3	0.20	1
o-Chlorotoluene	ND		ug/kg	3.3	0.32	1
p-Chlorotoluene	ND		ug/kg	3.3	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	1.7	1
Hexachlorobutadiene	ND		ug/kg	6.7	0.28	1
Isopropylbenzene	ND		ug/kg	1.7	0.18	1
p-Isopropyltoluene	ND		ug/kg	1.7	0.18	1
Naphthalene	ND		ug/kg	6.7	1.1	1
Acrylonitrile	ND		ug/kg	6.7	1.9	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06
Client ID: RB26_14-16
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:05
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.7	0.28	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.3	0.54	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.3	0.45	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.3	0.32	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.3	0.56	1
1,4-Dioxane	ND		ug/kg	130	58.	1
p-Diethylbenzene	ND		ug/kg	3.3	0.29	1
p-Ethyltoluene	ND		ug/kg	3.3	0.64	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.3	0.32	1
Ethyl ether	ND		ug/kg	3.3	0.57	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.3	2.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	108		70-130
Dibromofluoromethane	100		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07
 Client ID: RB23_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 07/11/19 10:50
 Analyst: JC
 Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	8.3	3.8	1
1,1-Dichloroethane	ND		ug/kg	1.6	0.24	1
Chloroform	ND		ug/kg	2.5	0.23	1
Carbon tetrachloride	ND		ug/kg	1.6	0.38	1
1,2-Dichloropropane	ND		ug/kg	1.6	0.21	1
Dibromochloromethane	ND		ug/kg	1.6	0.23	1
1,1,2-Trichloroethane	ND		ug/kg	1.6	0.44	1
Tetrachloroethene	24		ug/kg	0.83	0.32	1
Chlorobenzene	ND		ug/kg	0.83	0.21	1
Trichlorofluoromethane	ND		ug/kg	6.6	1.1	1
1,2-Dichloroethane	ND		ug/kg	1.6	0.42	1
1,1,1-Trichloroethane	ND		ug/kg	0.83	0.28	1
Bromodichloromethane	ND		ug/kg	0.83	0.18	1
trans-1,3-Dichloropropene	ND		ug/kg	1.6	0.45	1
cis-1,3-Dichloropropene	ND		ug/kg	0.83	0.26	1
1,3-Dichloropropene, Total	ND		ug/kg	0.83	0.26	1
1,1-Dichloropropene	ND		ug/kg	0.83	0.26	1
Bromoform	ND		ug/kg	6.6	0.41	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.83	0.27	1
Benzene	ND		ug/kg	0.83	0.27	1
Toluene	ND		ug/kg	1.6	0.90	1
Ethylbenzene	ND		ug/kg	1.6	0.23	1
Chloromethane	ND		ug/kg	6.6	1.5	1
Bromomethane	ND		ug/kg	3.3	0.96	1
Vinyl chloride	ND		ug/kg	1.6	0.55	1
Chloroethane	ND		ug/kg	3.3	0.75	1
1,1-Dichloroethene	ND		ug/kg	1.6	0.39	1
trans-1,2-Dichloroethene	ND		ug/kg	2.5	0.23	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07
Client ID: RB23_0-2
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:55
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.83	0.23	1
1,2-Dichlorobenzene	ND		ug/kg	3.3	0.24	1
1,3-Dichlorobenzene	ND		ug/kg	3.3	0.24	1
1,4-Dichlorobenzene	ND		ug/kg	3.3	0.28	1
Methyl tert butyl ether	ND		ug/kg	3.3	0.33	1
p/m-Xylene	ND		ug/kg	3.3	0.93	1
o-Xylene	ND		ug/kg	1.6	0.48	1
Xylenes, Total	ND		ug/kg	1.6	0.48	1
cis-1,2-Dichloroethene	ND		ug/kg	1.6	0.29	1
1,2-Dichloroethene, Total	ND		ug/kg	1.6	0.23	1
Dibromomethane	ND		ug/kg	3.3	0.39	1
Styrene	ND		ug/kg	1.6	0.32	1
Dichlorodifluoromethane	ND		ug/kg	16	1.5	1
Acetone	28		ug/kg	16	8.0	1
Carbon disulfide	ND		ug/kg	16	7.5	1
2-Butanone	ND		ug/kg	16	3.7	1
Vinyl acetate	ND		ug/kg	16	3.6	1
4-Methyl-2-pentanone	ND		ug/kg	16	2.1	1
1,2,3-Trichloropropane	ND		ug/kg	3.3	0.21	1
2-Hexanone	ND		ug/kg	16	2.0	1
Bromochloromethane	ND		ug/kg	3.3	0.34	1
2,2-Dichloropropane	ND		ug/kg	3.3	0.33	1
1,2-Dibromoethane	ND		ug/kg	1.6	0.46	1
1,3-Dichloropropane	ND		ug/kg	3.3	0.28	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.83	0.22	1
Bromobenzene	ND		ug/kg	3.3	0.24	1
n-Butylbenzene	ND		ug/kg	1.6	0.28	1
sec-Butylbenzene	ND		ug/kg	1.6	0.24	1
tert-Butylbenzene	ND		ug/kg	3.3	0.20	1
o-Chlorotoluene	ND		ug/kg	3.3	0.32	1
p-Chlorotoluene	ND		ug/kg	3.3	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	1.6	1
Hexachlorobutadiene	ND		ug/kg	6.6	0.28	1
Isopropylbenzene	ND		ug/kg	1.6	0.18	1
p-Isopropyltoluene	ND		ug/kg	1.6	0.18	1
Naphthalene	ND		ug/kg	6.6	1.1	1
Acrylonitrile	ND		ug/kg	6.6	1.9	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07
Client ID: RB23_0-2
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:55
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.6	0.28	1
1,2,3-Trichlorobenzene	ND		ug/kg	3.3	0.53	1
1,2,4-Trichlorobenzene	ND		ug/kg	3.3	0.45	1
1,3,5-Trimethylbenzene	ND		ug/kg	3.3	0.32	1
1,2,4-Trimethylbenzene	ND		ug/kg	3.3	0.55	1
1,4-Dioxane	ND		ug/kg	130	58.	1
p-Diethylbenzene	ND		ug/kg	3.3	0.29	1
p-Ethyltoluene	ND		ug/kg	3.3	0.64	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	3.3	0.32	1
Ethyl ether	ND		ug/kg	3.3	0.56	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	8.3	2.3	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	116		70-130
Toluene-d8	104		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	68	Q	70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08
 Client ID: RB23_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 07/11/19 11:17
 Analyst: JC
 Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.7	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.1	0.16	1
Chloroform	ND		ug/kg	1.7	0.16	1
Carbon tetrachloride	ND		ug/kg	1.1	0.26	1
1,2-Dichloropropane	ND		ug/kg	1.1	0.14	1
Dibromochloromethane	ND		ug/kg	1.1	0.16	1
1,1,2-Trichloroethane	ND		ug/kg	1.1	0.30	1
Tetrachloroethene	ND		ug/kg	0.57	0.22	1
Chlorobenzene	ND		ug/kg	0.57	0.14	1
Trichlorofluoromethane	ND		ug/kg	4.5	0.79	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.29	1
1,1,1-Trichloroethane	ND		ug/kg	0.57	0.19	1
Bromodichloromethane	ND		ug/kg	0.57	0.12	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.31	1
cis-1,3-Dichloropropene	ND		ug/kg	0.57	0.18	1
1,3-Dichloropropene, Total	ND		ug/kg	0.57	0.18	1
1,1-Dichloropropene	ND		ug/kg	0.57	0.18	1
Bromoform	ND		ug/kg	4.5	0.28	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.57	0.19	1
Benzene	ND		ug/kg	0.57	0.19	1
Toluene	0.66	J	ug/kg	1.1	0.61	1
Ethylbenzene	ND		ug/kg	1.1	0.16	1
Chloromethane	ND		ug/kg	4.5	1.0	1
Bromomethane	ND		ug/kg	2.3	0.66	1
Vinyl chloride	ND		ug/kg	1.1	0.38	1
Chloroethane	ND		ug/kg	2.3	0.51	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.27	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.16	1

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08

Date Collected: 07/10/19 14:05

Client ID: RB23_10-12

Date Received: 07/10/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.57	0.16	1
1,2-Dichlorobenzene	ND		ug/kg	2.3	0.16	1
1,3-Dichlorobenzene	ND		ug/kg	2.3	0.17	1
1,4-Dichlorobenzene	ND		ug/kg	2.3	0.19	1
Methyl tert butyl ether	0.34	J	ug/kg	2.3	0.23	1
p/m-Xylene	ND		ug/kg	2.3	0.63	1
o-Xylene	ND		ug/kg	1.1	0.33	1
Xylenes, Total	ND		ug/kg	1.1	0.33	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.20	1
1,2-Dichloroethene, Total	ND		ug/kg	1.1	0.16	1
Dibromomethane	ND		ug/kg	2.3	0.27	1
Styrene	ND		ug/kg	1.1	0.22	1
Dichlorodifluoromethane	ND		ug/kg	11	1.0	1
Acetone	15		ug/kg	11	5.4	1
Carbon disulfide	ND		ug/kg	11	5.2	1
2-Butanone	ND		ug/kg	11	2.5	1
Vinyl acetate	ND		ug/kg	11	2.4	1
4-Methyl-2-pentanone	ND		ug/kg	11	1.4	1
1,2,3-Trichloropropane	ND		ug/kg	2.3	0.14	1
2-Hexanone	ND		ug/kg	11	1.3	1
Bromochloromethane	ND		ug/kg	2.3	0.23	1
2,2-Dichloropropane	ND		ug/kg	2.3	0.23	1
1,2-Dibromoethane	ND		ug/kg	1.1	0.32	1
1,3-Dichloropropane	ND		ug/kg	2.3	0.19	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.57	0.15	1
Bromobenzene	ND		ug/kg	2.3	0.16	1
n-Butylbenzene	ND		ug/kg	1.1	0.19	1
sec-Butylbenzene	ND		ug/kg	1.1	0.16	1
tert-Butylbenzene	ND		ug/kg	2.3	0.13	1
o-Chlorotoluene	ND		ug/kg	2.3	0.22	1
p-Chlorotoluene	ND		ug/kg	2.3	0.12	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.4	1.1	1
Hexachlorobutadiene	ND		ug/kg	4.5	0.19	1
Isopropylbenzene	ND		ug/kg	1.1	0.12	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.12	1
Naphthalene	ND		ug/kg	4.5	0.74	1
Acrylonitrile	ND		ug/kg	4.5	1.3	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08
 Client ID: RB23_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.1	0.19	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.3	0.36	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.3	0.31	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.3	0.22	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.3	0.38	1
1,4-Dioxane	ND		ug/kg	90	40.	1
p-Diethylbenzene	ND		ug/kg	2.3	0.20	1
p-Ethyltoluene	ND		ug/kg	2.3	0.43	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.3	0.22	1
Ethyl ether	ND		ug/kg	2.3	0.39	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.7	1.6	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	97		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09
 Client ID: RB23_13-15
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:10
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8260C
 Analytical Date: 07/11/19 11:44
 Analyst: JC
 Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Methylene chloride	ND		ug/kg	5.2	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.0	0.15	1
Chloroform	ND		ug/kg	1.5	0.14	1
Carbon tetrachloride	ND		ug/kg	1.0	0.24	1
1,2-Dichloropropane	ND		ug/kg	1.0	0.13	1
Dibromochloromethane	ND		ug/kg	1.0	0.14	1
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.28	1
Tetrachloroethene	21		ug/kg	0.52	0.20	1
Chlorobenzene	ND		ug/kg	0.52	0.13	1
Trichlorofluoromethane	ND		ug/kg	4.1	0.72	1
1,2-Dichloroethane	ND		ug/kg	1.0	0.26	1
1,1,1-Trichloroethane	ND		ug/kg	0.52	0.17	1
Bromodichloromethane	ND		ug/kg	0.52	0.11	1
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.28	1
cis-1,3-Dichloropropene	ND		ug/kg	0.52	0.16	1
1,3-Dichloropropene, Total	ND		ug/kg	0.52	0.16	1
1,1-Dichloropropene	ND		ug/kg	0.52	0.16	1
Bromoform	ND		ug/kg	4.1	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.52	0.17	1
Benzene	0.18	J	ug/kg	0.52	0.17	1
Toluene	ND		ug/kg	1.0	0.56	1
Ethylbenzene	0.16	J	ug/kg	1.0	0.14	1
Chloromethane	ND		ug/kg	4.1	0.96	1
Bromomethane	ND		ug/kg	2.1	0.60	1
Vinyl chloride	ND		ug/kg	1.0	0.34	1
Chloroethane	ND		ug/kg	2.1	0.47	1
1,1-Dichloroethene	ND		ug/kg	1.0	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09
Client ID: RB23_13-15
Sample Location: BRONX, NY

Date Collected: 07/10/19 14:10
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatiles Organics by EPA 5035 Low - Westborough Lab						
Trichloroethene	ND		ug/kg	0.52	0.14	1
1,2-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,3-Dichlorobenzene	ND		ug/kg	2.1	0.15	1
1,4-Dichlorobenzene	ND		ug/kg	2.1	0.18	1
Methyl tert butyl ether	ND		ug/kg	2.1	0.21	1
p/m-Xylene	ND		ug/kg	2.1	0.58	1
o-Xylene	ND		ug/kg	1.0	0.30	1
Xylenes, Total	ND		ug/kg	1.0	0.30	1
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18	1
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14	1
Dibromomethane	ND		ug/kg	2.1	0.24	1
Styrene	ND		ug/kg	1.0	0.20	1
Dichlorodifluoromethane	ND		ug/kg	10	0.94	1
Acetone	14		ug/kg	10	5.0	1
Carbon disulfide	ND		ug/kg	10	4.7	1
2-Butanone	ND		ug/kg	10	2.3	1
Vinyl acetate	ND		ug/kg	10	2.2	1
4-Methyl-2-pentanone	ND		ug/kg	10	1.3	1
1,2,3-Trichloropropane	ND		ug/kg	2.1	0.13	1
2-Hexanone	ND		ug/kg	10	1.2	1
Bromochloromethane	ND		ug/kg	2.1	0.21	1
2,2-Dichloropropane	ND		ug/kg	2.1	0.21	1
1,2-Dibromoethane	ND		ug/kg	1.0	0.29	1
1,3-Dichloropropane	ND		ug/kg	2.1	0.17	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.52	0.14	1
Bromobenzene	ND		ug/kg	2.1	0.15	1
n-Butylbenzene	ND		ug/kg	1.0	0.17	1
sec-Butylbenzene	ND		ug/kg	1.0	0.15	1
tert-Butylbenzene	ND		ug/kg	2.1	0.12	1
o-Chlorotoluene	ND		ug/kg	2.1	0.20	1
p-Chlorotoluene	ND		ug/kg	2.1	0.11	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.1	1.0	1
Hexachlorobutadiene	ND		ug/kg	4.1	0.17	1
Isopropylbenzene	ND		ug/kg	1.0	0.11	1
p-Isopropyltoluene	ND		ug/kg	1.0	0.11	1
Naphthalene	ND		ug/kg	4.1	0.67	1
Acrylonitrile	ND		ug/kg	4.1	1.2	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09
Client ID: RB23_13-15
Sample Location: BRONX, NY

Date Collected: 07/10/19 14:10
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
n-Propylbenzene	ND		ug/kg	1.0	0.18	1
1,2,3-Trichlorobenzene	ND		ug/kg	2.1	0.33	1
1,2,4-Trichlorobenzene	ND		ug/kg	2.1	0.28	1
1,3,5-Trimethylbenzene	ND		ug/kg	2.1	0.20	1
1,2,4-Trimethylbenzene	ND		ug/kg	2.1	0.34	1
1,4-Dioxane	ND		ug/kg	83	36.	1
p-Diethylbenzene	ND		ug/kg	2.1	0.18	1
p-Ethyltoluene	ND		ug/kg	2.1	0.40	1
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.1	0.20	1
Ethyl ether	ND		ug/kg	2.1	0.35	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.2	1.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	114		70-130
Toluene-d8	105		70-130
4-Bromofluorobenzene	114		70-130
Dibromofluoromethane	97		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-11
 Client ID: SOTB06_071019
 Sample Location: BRONX, NY

Date Collected: 07/10/19 00:00
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Water
 Analytical Method: 1,8260C
 Analytical Date: 07/11/19 10:34
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	2.5	0.70	1
1,1-Dichloroethane	ND		ug/l	2.5	0.70	1
Chloroform	ND		ug/l	2.5	0.70	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	2.5	0.70	1
Trichlorofluoromethane	ND		ug/l	2.5	0.70	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.70	1
Bromoform	ND		ug/l	2.0	0.65	1
1,1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	ND		ug/l	2.5	0.70	1
Ethylbenzene	ND		ug/l	2.5	0.70	1
Chloromethane	ND		ug/l	2.5	0.70	1
Bromomethane	ND		ug/l	2.5	0.70	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Chloroethane	ND		ug/l	2.5	0.70	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-11
Client ID: SOTB06_071019
Sample Location: BRONX, NY

Date Collected: 07/10/19 00:00
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70	1
Methyl tert butyl ether	ND		ug/l	2.5	0.70	1
p/m-Xylene	ND		ug/l	2.5	0.70	1
o-Xylene	ND		ug/l	2.5	0.70	1
Xylenes, Total	ND		ug/l	2.5	0.70	1
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70	1
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70	1
Dibromomethane	ND		ug/l	5.0	1.0	1
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70	1
Acrylonitrile	ND		ug/l	5.0	1.5	1
Styrene	ND		ug/l	2.5	0.70	1
Dichlorodifluoromethane	ND		ug/l	5.0	1.0	1
Acetone	ND		ug/l	5.0	1.5	1
Carbon disulfide	ND		ug/l	5.0	1.0	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	1.0	1
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0	1
2-Hexanone	ND		ug/l	5.0	1.0	1
Bromochloromethane	ND		ug/l	2.5	0.70	1
2,2-Dichloropropane	ND		ug/l	2.5	0.70	1
1,2-Dibromoethane	ND		ug/l	2.0	0.65	1
1,3-Dichloropropane	ND		ug/l	2.5	0.70	1
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70	1
Bromobenzene	ND		ug/l	2.5	0.70	1
n-Butylbenzene	ND		ug/l	2.5	0.70	1
sec-Butylbenzene	ND		ug/l	2.5	0.70	1
tert-Butylbenzene	ND		ug/l	2.5	0.70	1
o-Chlorotoluene	ND		ug/l	2.5	0.70	1
p-Chlorotoluene	ND		ug/l	2.5	0.70	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70	1
Hexachlorobutadiene	ND		ug/l	2.5	0.70	1
Isopropylbenzene	ND		ug/l	2.5	0.70	1
p-Isopropyltoluene	ND		ug/l	2.5	0.70	1
Naphthalene	ND		ug/l	2.5	0.70	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-11
Client ID: SOTB06_071019
Sample Location: BRONX, NY

Date Collected: 07/10/19 00:00
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
n-Propylbenzene	ND		ug/l	2.5	0.70	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70	1
1,4-Dioxane	ND		ug/l	250	61.	1
p-Diethylbenzene	ND		ug/l	2.0	0.70	1
p-Ethyltoluene	ND		ug/l	2.0	0.70	1
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54	1
Ethyl ether	ND		ug/l	2.5	0.70	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	90		70-130
Dibromofluoromethane	93		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 07/11/19 08:43
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1258652-5					
Methylene chloride	ND		ug/l	2.5	0.70
1,1-Dichloroethane	ND		ug/l	2.5	0.70
Chloroform	ND		ug/l	2.5	0.70
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	1.5	0.50
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	2.5	0.70
Trichlorofluoromethane	ND		ug/l	2.5	0.70
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	2.5	0.70
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.70
Bromoform	ND		ug/l	2.0	0.65
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.17
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	2.5	0.70
Ethylbenzene	ND		ug/l	2.5	0.70
Chloromethane	ND		ug/l	2.5	0.70
Bromomethane	ND		ug/l	2.5	0.70
Vinyl chloride	ND		ug/l	1.0	0.07
Chloroethane	ND		ug/l	2.5	0.70
1,1-Dichloroethene	ND		ug/l	0.50	0.17
trans-1,2-Dichloroethene	ND		ug/l	2.5	0.70
Trichloroethene	ND		ug/l	0.50	0.18

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/11/19 08:43
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1258652-5					
1,2-Dichlorobenzene	ND		ug/l	2.5	0.70
1,3-Dichlorobenzene	ND		ug/l	2.5	0.70
1,4-Dichlorobenzene	ND		ug/l	2.5	0.70
Methyl tert butyl ether	ND		ug/l	2.5	0.70
p/m-Xylene	ND		ug/l	2.5	0.70
o-Xylene	ND		ug/l	2.5	0.70
Xylenes, Total	ND		ug/l	2.5	0.70
cis-1,2-Dichloroethene	ND		ug/l	2.5	0.70
1,2-Dichloroethene, Total	ND		ug/l	2.5	0.70
Dibromomethane	ND		ug/l	5.0	1.0
1,2,3-Trichloropropane	ND		ug/l	2.5	0.70
Acrylonitrile	ND		ug/l	5.0	1.5
Styrene	ND		ug/l	2.5	0.70
Dichlorodifluoromethane	ND		ug/l	5.0	1.0
Acetone	ND		ug/l	5.0	1.5
Carbon disulfide	ND		ug/l	5.0	1.0
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	1.0
4-Methyl-2-pentanone	ND		ug/l	5.0	1.0
2-Hexanone	ND		ug/l	5.0	1.0
Bromochloromethane	ND		ug/l	2.5	0.70
2,2-Dichloropropane	ND		ug/l	2.5	0.70
1,2-Dibromoethane	ND		ug/l	2.0	0.65
1,3-Dichloropropane	ND		ug/l	2.5	0.70
1,1,1,2-Tetrachloroethane	ND		ug/l	2.5	0.70
Bromobenzene	ND		ug/l	2.5	0.70
n-Butylbenzene	ND		ug/l	2.5	0.70
sec-Butylbenzene	ND		ug/l	2.5	0.70
tert-Butylbenzene	ND		ug/l	2.5	0.70

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8260C
Analytical Date: 07/11/19 08:43
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 11 Batch: WG1258652-5					
o-Chlorotoluene	ND		ug/l	2.5	0.70
p-Chlorotoluene	ND		ug/l	2.5	0.70
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.70
Hexachlorobutadiene	ND		ug/l	2.5	0.70
Isopropylbenzene	ND		ug/l	2.5	0.70
p-Isopropyltoluene	ND		ug/l	2.5	0.70
Naphthalene	ND		ug/l	2.5	0.70
n-Propylbenzene	ND		ug/l	2.5	0.70
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.70
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.70
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.70
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.70
1,4-Dioxane	ND		ug/l	250	61.
p-Diethylbenzene	ND		ug/l	2.0	0.70
p-Ethyltoluene	ND		ug/l	2.0	0.70
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	0.54
Ethyl ether	ND		ug/l	2.5	0.70
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.70

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	96		70-130

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/11/19 07:43
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-09 Batch: WG1258702-5					
Methylene chloride	ND		ug/kg	5.0	2.3
1,1-Dichloroethane	ND		ug/kg	1.0	0.14
Chloroform	ND		ug/kg	1.5	0.14
Carbon tetrachloride	ND		ug/kg	1.0	0.23
1,2-Dichloropropane	ND		ug/kg	1.0	0.12
Dibromochloromethane	ND		ug/kg	1.0	0.14
1,1,2-Trichloroethane	ND		ug/kg	1.0	0.27
Tetrachloroethene	ND		ug/kg	0.50	0.20
Chlorobenzene	ND		ug/kg	0.50	0.13
Trichlorofluoromethane	ND		ug/kg	4.0	0.70
1,2-Dichloroethane	ND		ug/kg	1.0	0.26
1,1,1-Trichloroethane	ND		ug/kg	0.50	0.17
Bromodichloromethane	ND		ug/kg	0.50	0.11
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.27
cis-1,3-Dichloropropene	ND		ug/kg	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/kg	0.50	0.16
1,1-Dichloropropene	ND		ug/kg	0.50	0.16
Bromoform	ND		ug/kg	4.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/kg	0.50	0.17
Benzene	ND		ug/kg	0.50	0.17
Toluene	ND		ug/kg	1.0	0.54
Ethylbenzene	ND		ug/kg	1.0	0.14
Chloromethane	ND		ug/kg	4.0	0.93
Bromomethane	ND		ug/kg	2.0	0.58
Vinyl chloride	ND		ug/kg	1.0	0.34
Chloroethane	ND		ug/kg	2.0	0.45
1,1-Dichloroethene	ND		ug/kg	1.0	0.24
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.14
Trichloroethene	ND		ug/kg	0.50	0.14

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/11/19 07:43
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-09 Batch: WG1258702-5					
1,2-Dichlorobenzene	ND		ug/kg	2.0	0.14
1,3-Dichlorobenzene	ND		ug/kg	2.0	0.15
1,4-Dichlorobenzene	ND		ug/kg	2.0	0.17
Methyl tert butyl ether	ND		ug/kg	2.0	0.20
p/m-Xylene	ND		ug/kg	2.0	0.56
o-Xylene	ND		ug/kg	1.0	0.29
Xylenes, Total	ND		ug/kg	1.0	0.29
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.18
1,2-Dichloroethene, Total	ND		ug/kg	1.0	0.14
Dibromomethane	ND		ug/kg	2.0	0.24
Styrene	ND		ug/kg	1.0	0.20
Dichlorodifluoromethane	ND		ug/kg	10	0.92
Acetone	ND		ug/kg	10	4.8
Carbon disulfide	ND		ug/kg	10	4.6
2-Butanone	ND		ug/kg	10	2.2
Vinyl acetate	ND		ug/kg	10	2.2
4-Methyl-2-pentanone	ND		ug/kg	10	1.3
1,2,3-Trichloropropane	ND		ug/kg	2.0	0.13
2-Hexanone	ND		ug/kg	10	1.2
Bromochloromethane	ND		ug/kg	2.0	0.20
2,2-Dichloropropane	ND		ug/kg	2.0	0.20
1,2-Dibromoethane	ND		ug/kg	1.0	0.28
1,3-Dichloropropane	ND		ug/kg	2.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	0.50	0.13
Bromobenzene	ND		ug/kg	2.0	0.14
n-Butylbenzene	ND		ug/kg	1.0	0.17
sec-Butylbenzene	ND		ug/kg	1.0	0.15
tert-Butylbenzene	ND		ug/kg	2.0	0.12
o-Chlorotoluene	ND		ug/kg	2.0	0.19

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 07/11/19 07:43
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-09 Batch: WG1258702-5					
p-Chlorotoluene	ND		ug/kg	2.0	0.11
1,2-Dibromo-3-chloropropane	ND		ug/kg	3.0	1.0
Hexachlorobutadiene	ND		ug/kg	4.0	0.17
Isopropylbenzene	ND		ug/kg	1.0	0.11
p-Isopropyltoluene	ND		ug/kg	1.0	0.11
Naphthalene	ND		ug/kg	4.0	0.65
Acrylonitrile	ND		ug/kg	4.0	1.2
n-Propylbenzene	ND		ug/kg	1.0	0.17
1,2,3-Trichlorobenzene	ND		ug/kg	2.0	0.32
1,2,4-Trichlorobenzene	ND		ug/kg	2.0	0.27
1,3,5-Trimethylbenzene	ND		ug/kg	2.0	0.19
1,2,4-Trimethylbenzene	ND		ug/kg	2.0	0.33
1,4-Dioxane	ND		ug/kg	80	35.
p-Diethylbenzene	ND		ug/kg	2.0	0.18
p-Ethyltoluene	ND		ug/kg	2.0	0.38
1,2,4,5-Tetramethylbenzene	ND		ug/kg	2.0	0.19
Ethyl ether	ND		ug/kg	2.0	0.34
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	1.4

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	115		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	99		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1258652-3 WG1258652-4								
Methylene chloride	90		90		70-130	0		20
1,1-Dichloroethane	87		86		70-130	1		20
Chloroform	84		85		70-130	1		20
Carbon tetrachloride	90		91		63-132	1		20
1,2-Dichloropropane	90		89		70-130	1		20
Dibromochloromethane	98		94		63-130	4		20
1,1,2-Trichloroethane	100		99		70-130	1		20
Tetrachloroethene	98		97		70-130	1		20
Chlorobenzene	98		97		75-130	1		20
Trichlorofluoromethane	71		71		62-150	0		20
1,2-Dichloroethane	82		81		70-130	1		20
1,1,1-Trichloroethane	85		86		67-130	1		20
Bromodichloromethane	85		85		67-130	0		20
trans-1,3-Dichloropropene	99		95		70-130	4		20
cis-1,3-Dichloropropene	96		94		70-130	2		20
1,1-Dichloropropene	86		85		70-130	1		20
Bromoform	92		90		54-136	2		20
1,1,1,2-Tetrachloroethane	97		97		67-130	0		20
Benzene	87		88		70-130	1		20
Toluene	97		95		70-130	2		20
Ethylbenzene	97		96		70-130	1		20
Chloromethane	66		59	Q	64-130	11		20
Bromomethane	42		38	Q	39-139	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1258652-3 WG1258652-4								
Vinyl chloride	78		77		55-140	1		20
Chloroethane	88		85		55-138	3		20
1,1-Dichloroethene	83		82		61-145	1		20
trans-1,2-Dichloroethene	86		87		70-130	1		20
Trichloroethene	88		86		70-130	2		20
1,2-Dichlorobenzene	98		98		70-130	0		20
1,3-Dichlorobenzene	96		97		70-130	1		20
1,4-Dichlorobenzene	96		97		70-130	1		20
Methyl tert butyl ether	91		88		63-130	3		20
p/m-Xylene	100		100		70-130	0		20
o-Xylene	100		100		70-130	0		20
cis-1,2-Dichloroethene	91		90		70-130	1		20
Dibromomethane	90		86		70-130	5		20
1,2,3-Trichloropropane	95		93		64-130	2		20
Acrylonitrile	90		87		70-130	3		20
Styrene	105		105		70-130	0		20
Dichlorodifluoromethane	62		62		36-147	0		20
Acetone	80		76		58-148	5		20
Carbon disulfide	81		82		51-130	1		20
2-Butanone	96		92		63-138	4		20
Vinyl acetate	90		91		70-130	1		20
4-Methyl-2-pentanone	96		92		59-130	4		20
2-Hexanone	96		93		57-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1258652-3 WG1258652-4								
Bromochloromethane	97		95		70-130	2		20
2,2-Dichloropropane	110		110		63-133	0		20
1,2-Dibromoethane	98		96		70-130	2		20
1,3-Dichloropropane	98		95		70-130	3		20
1,1,1,2-Tetrachloroethane	100		100		64-130	0		20
Bromobenzene	96		94		70-130	2		20
n-Butylbenzene	94		95		53-136	1		20
sec-Butylbenzene	94		96		70-130	2		20
tert-Butylbenzene	94		94		70-130	0		20
o-Chlorotoluene	92		91		70-130	1		20
p-Chlorotoluene	92		93		70-130	1		20
1,2-Dibromo-3-chloropropane	96		93		41-144	3		20
Hexachlorobutadiene	98		100		63-130	2		20
Isopropylbenzene	95		96		70-130	1		20
p-Isopropyltoluene	97		98		70-130	1		20
Naphthalene	97		100		70-130	3		20
n-Propylbenzene	95		96		69-130	1		20
1,2,3-Trichlorobenzene	94		100		70-130	6		20
1,2,4-Trichlorobenzene	99		100		70-130	1		20
1,3,5-Trimethylbenzene	93		94		64-130	1		20
1,2,4-Trimethylbenzene	94		95		70-130	1		20
1,4-Dioxane	100		100		56-162	0		20
p-Diethylbenzene	97		99		70-130	2		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Project Number: 170487001

Lab Number: L1930096

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 11 Batch: WG1258652-3 WG1258652-4								
p-Ethyltoluene	96		97		70-130	1		20
1,2,4,5-Tetramethylbenzene	97		98		70-130	1		20
Ethyl ether	92		89		59-134	3		20
trans-1,4-Dichloro-2-butene	84		78		70-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	93		91		70-130
Toluene-d8	103		102		70-130
4-Bromofluorobenzene	93		92		70-130
Dibromofluoromethane	94		95		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-09 Batch: WG1258702-3 WG1258702-4								
Methylene chloride	89		88		70-130	1		30
1,1-Dichloroethane	104		106		70-130	2		30
Chloroform	97		98		70-130	1		30
Carbon tetrachloride	84		84		70-130	0		30
1,2-Dichloropropane	105		105		70-130	0		30
Dibromochloromethane	85		90		70-130	6		30
1,1,2-Trichloroethane	98		100		70-130	2		30
Tetrachloroethene	86		88		70-130	2		30
Chlorobenzene	94		96		70-130	2		30
Trichlorofluoromethane	96		97		70-139	1		30
1,2-Dichloroethane	105		105		70-130	0		30
1,1,1-Trichloroethane	93		92		70-130	1		30
Bromodichloromethane	90		91		70-130	1		30
trans-1,3-Dichloropropene	92		94		70-130	2		30
cis-1,3-Dichloropropene	92		93		70-130	1		30
1,1-Dichloropropene	96		100		70-130	4		30
Bromoform	76		78		70-130	3		30
1,1,1,2-Tetrachloroethane	104		106		70-130	2		30
Benzene	95		96		70-130	1		30
Toluene	97		99		70-130	2		30
Ethylbenzene	98		101		70-130	3		30
Chloromethane	124		121		52-130	2		30
Bromomethane	148	Q	142		57-147	4		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-09 Batch: WG1258702-3 WG1258702-4								
Vinyl chloride	115		116		67-130	1		30
Chloroethane	105		104		50-151	1		30
1,1-Dichloroethene	90		93		65-135	3		30
trans-1,2-Dichloroethene	91		91		70-130	0		30
Trichloroethene	88		90		70-130	2		30
1,2-Dichlorobenzene	94		98		70-130	4		30
1,3-Dichlorobenzene	93		96		70-130	3		30
1,4-Dichlorobenzene	91		94		70-130	3		30
Methyl tert butyl ether	94		93		66-130	1		30
p/m-Xylene	93		95		70-130	2		30
o-Xylene	92		95		70-130	3		30
cis-1,2-Dichloroethene	92		92		70-130	0		30
Dibromomethane	96		96		70-130	0		30
Styrene	91		94		70-130	3		30
Dichlorodifluoromethane	87		88		30-146	1		30
Acetone	121		108		54-140	11		30
Carbon disulfide	94		94		59-130	0		30
2-Butanone	103		90		70-130	13		30
Vinyl acetate	103		104		70-130	1		30
4-Methyl-2-pentanone	104		104		70-130	0		30
1,2,3-Trichloropropane	106		107		68-130	1		30
2-Hexanone	112		107		70-130	5		30
Bromochloromethane	90		90		70-130	0		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-09 Batch: WG1258702-3 WG1258702-4								
2,2-Dichloropropane	89		88		70-130	1		30
1,2-Dibromoethane	94		98		70-130	4		30
1,3-Dichloropropane	103		106		69-130	3		30
1,1,1,2-Tetrachloroethane	85		87		70-130	2		30
Bromobenzene	91		94		70-130	3		30
n-Butylbenzene	102		106		70-130	4		30
sec-Butylbenzene	99		102		70-130	3		30
tert-Butylbenzene	96		100		70-130	4		30
o-Chlorotoluene	103		105		70-130	2		30
p-Chlorotoluene	101		103		70-130	2		30
1,2-Dibromo-3-chloropropane	82		83		68-130	1		30
Hexachlorobutadiene	80		84		67-130	5		30
Isopropylbenzene	99		102		70-130	3		30
p-Isopropyltoluene	96		99		70-130	3		30
Naphthalene	95		95		70-130	0		30
Acrylonitrile	103		103		70-130	0		30
n-Propylbenzene	101		104		70-130	3		30
1,2,3-Trichlorobenzene	88		90		70-130	2		30
1,2,4-Trichlorobenzene	86		88		70-130	2		30
1,3,5-Trimethylbenzene	98		102		70-130	4		30
1,2,4-Trimethylbenzene	97		100		70-130	3		30
1,4-Dioxane	118		111		65-136	6		30
p-Diethylbenzene	94		97		70-130	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Project Number: 170487001

Lab Number: L1930096

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-09 Batch: WG1258702-3 WG1258702-4								
p-Ethyltoluene	99		102		70-130	3		30
1,2,4,5-Tetramethylbenzene	93		96		70-130	3		30
Ethyl ether	97		96		67-130	1		30
trans-1,4-Dichloro-2-butene	101		104		70-130	3		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	113		111		70-130
Toluene-d8	103		105		70-130
4-Bromofluorobenzene	106		105		70-130
Dibromofluoromethane	98		98		70-130

SEMIVOLATILES

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01
 Client ID: RB24_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/11/19 19:28
 Analyst: JG
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 06:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	21.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	33.	1
1,3-Dichlorobenzene	ND		ug/kg	180	32.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	49.	1
2,4-Dinitrotoluene	ND		ug/kg	180	37.	1
2,6-Dinitrotoluene	ND		ug/kg	180	32.	1
Fluoranthene	120		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	20.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	530	170	1
Hexachloroethane	ND		ug/kg	150	30.	1
Isophorone	ND		ug/kg	160	24.	1
Naphthalene	25	J	ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	150	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	64.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	35.	1
Di-n-octylphthalate	ND		ug/kg	180	63.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01
Client ID: RB24_0-2
Sample Location: BRONX, NY

Date Collected: 07/10/19 11:45
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	39.	1
Benzo(a)anthracene	62	J	ug/kg	110	21.	1
Benzo(a)pyrene	48	J	ug/kg	150	45.	1
Benzo(b)fluoranthene	80	J	ug/kg	110	31.	1
Benzo(k)fluoranthene	ND		ug/kg	110	30.	1
Chrysene	68	J	ug/kg	110	19.	1
Acenaphthylene	ND		ug/kg	150	28.	1
Anthracene	ND		ug/kg	110	36.	1
Benzo(ghi)perylene	50	J	ug/kg	150	22.	1
Fluorene	ND		ug/kg	180	18.	1
Phenanthrene	62	J	ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	45	J	ug/kg	150	26.	1
Pyrene	100	J	ug/kg	110	18.	1
Biphenyl	ND		ug/kg	420	43.	1
4-Chloroaniline	ND		ug/kg	180	34.	1
2-Nitroaniline	ND		ug/kg	180	36.	1
3-Nitroaniline	ND		ug/kg	180	35.	1
4-Nitroaniline	ND		ug/kg	180	76.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	23.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	22.	1
2,4-Dichlorophenol	ND		ug/kg	160	30.	1
2,4-Dimethylphenol	ND		ug/kg	180	61.	1
2-Nitrophenol	ND		ug/kg	400	69.	1
4-Nitrophenol	ND		ug/kg	260	75.	1
2,4-Dinitrophenol	ND		ug/kg	880	86.	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	88.	1
Pentachlorophenol	ND		ug/kg	150	40.	1
Phenol	ND		ug/kg	180	28.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	29.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01
 Client ID: RB24_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	600	190	1
Benzyl Alcohol	ND		ug/kg	180	56.	1
Carbazole	ND		ug/kg	180	18.	1
1,4-Dioxane	ND		ug/kg	28	8.5	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	57		25-120
Phenol-d6	60		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	75		30-120
2,4,6-Tribromophenol	66		10-136
4-Terphenyl-d14	70		18-120

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01
 Client ID: RB24_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 122,537(M)
 Analytical Date: 07/26/19 19:04
 Analyst: JW
 Percent Solids: 90%

Extraction Method: EPA 537(M)
 Extraction Date: 07/25/19 10:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	1.09	0.025	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.09	0.050	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.09	0.043	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.09	0.057	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.09	0.049	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.09	0.066	1
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	1.09	0.046	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.09	0.196	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.09	0.149	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.09	0.082	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.09	0.142	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.09	0.073	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.09	0.314	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.09	0.220	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.09	0.051	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.09	0.167	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.09	0.107	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.09	0.092	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.09	0.077	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.09	0.224	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.09	0.059	1
PFOA/PFOS, Total	ND		ug/kg	1.09	0.046	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01
 Client ID: RB24_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	89		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	96		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	91		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	88		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	88		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	88		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	91		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	78		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	99		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	88		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	89		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	95		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	70		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	94		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	87		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	71		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	87		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	82		26-160

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02
 Client ID: RB24_8-10
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/11/19 19:52
 Analyst: JG
 Percent Solids: 94%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 06:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	20.	1
Hexachlorobenzene	ND		ug/kg	100	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	17.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	30.	1
1,4-Dichlorobenzene	ND		ug/kg	180	31.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	47.	1
2,4-Dinitrotoluene	ND		ug/kg	180	35.	1
2,6-Dinitrotoluene	ND		ug/kg	180	30.	1
Fluoranthene	240		ug/kg	100	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	27.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	30.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	500	160	1
Hexachloroethane	ND		ug/kg	140	28.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	ND		ug/kg	180	21.	1
Nitrobenzene	ND		ug/kg	160	26.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	27.	1
Bis(2-ethylhexyl)phthalate	240		ug/kg	180	61.	1
Butyl benzyl phthalate	200		ug/kg	180	44.	1
Di-n-butylphthalate	35	J	ug/kg	180	33.	1
Di-n-octylphthalate	ND		ug/kg	180	60.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02
Client ID: RB24_8-10
Sample Location: BRONX, NY

Date Collected: 07/10/19 11:55
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	16.	1
Dimethyl phthalate	ND		ug/kg	180	37.	1
Benzo(a)anthracene	110		ug/kg	100	20.	1
Benzo(a)pyrene	58	J	ug/kg	140	43.	1
Benzo(b)fluoranthene	100		ug/kg	100	30.	1
Benzo(k)fluoranthene	40	J	ug/kg	100	28.	1
Chrysene	110		ug/kg	100	18.	1
Acenaphthylene	ND		ug/kg	140	27.	1
Anthracene	ND		ug/kg	100	34.	1
Benzo(ghi)perylene	41	J	ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	17.	1
Phenanthrene	130		ug/kg	100	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	100	20.	1
Indeno(1,2,3-cd)pyrene	45	J	ug/kg	140	24.	1
Pyrene	180		ug/kg	100	18.	1
Biphenyl	ND		ug/kg	400	41.	1
4-Chloroaniline	ND		ug/kg	180	32.	1
2-Nitroaniline	ND		ug/kg	180	34.	1
3-Nitroaniline	ND		ug/kg	180	33.	1
4-Nitroaniline	ND		ug/kg	180	73.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	210	21.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	18.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	100	33.	1
p-Chloro-m-cresol	ND		ug/kg	180	26.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	28.	1
2,4-Dimethylphenol	ND		ug/kg	180	58.	1
2-Nitrophenol	ND		ug/kg	380	66.	1
4-Nitrophenol	ND		ug/kg	250	72.	1
2,4-Dinitrophenol	ND		ug/kg	840	82.	1
4,6-Dinitro-o-cresol	ND		ug/kg	460	84.	1
Pentachlorophenol	ND		ug/kg	140	39.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	27.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	28.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02
Client ID: RB24_8-10
Sample Location: BRONX, NY

Date Collected: 07/10/19 11:55
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	34.	1
Benzoic Acid	ND		ug/kg	570	180	1
Benzyl Alcohol	ND		ug/kg	180	54.	1
Carbazole	43	J	ug/kg	180	17.	1
1,4-Dioxane	ND		ug/kg	26	8.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	52		25-120
Phenol-d6	63		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	71		30-120
2,4,6-Tribromophenol	45		10-136
4-Terphenyl-d14	69		18-120

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02
 Client ID: RB24_8-10
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 122,537(M)
 Analytical Date: 07/26/19 19:20
 Analyst: JW
 Percent Solids: 94%

Extraction Method: EPA 537(M)
 Extraction Date: 07/25/19 10:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	0.922	0.021	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	0.922	0.042	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	0.922	0.036	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	0.922	0.048	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	0.922	0.042	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	0.922	0.056	1
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	0.922	0.039	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	0.922	0.166	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	0.922	0.126	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	0.922	0.069	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	0.922	0.120	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	0.922	0.062	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	0.922	0.265	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	0.922	0.186	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	0.922	0.043	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	0.922	0.141	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	0.922	0.090	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	0.922	0.078	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	0.922	0.065	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	0.922	0.188	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	0.922	0.050	1
PFOA/PFOS, Total	ND		ug/kg	0.922	0.039	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02
 Client ID: RB24_8-10
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	81		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	88		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	89		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	81		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	82		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	86		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	82		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	67		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	90		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	88		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	82		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	86		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	52		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	89		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	1		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	52		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	82		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	79		26-160

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03
 Client ID: RB24_13-15
 Sample Location: BRONX, NY

Date Collected: 07/10/19 12:15
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/11/19 20:17
 Analyst: JG
 Percent Solids: 66%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 06:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	200	26.	1
1,2,4-Trichlorobenzene	ND		ug/kg	250	29.	1
Hexachlorobenzene	ND		ug/kg	150	28.	1
Bis(2-chloroethyl)ether	ND		ug/kg	230	34.	1
2-Chloronaphthalene	ND		ug/kg	250	25.	1
1,2-Dichlorobenzene	ND		ug/kg	250	45.	1
1,3-Dichlorobenzene	ND		ug/kg	250	43.	1
1,4-Dichlorobenzene	ND		ug/kg	250	44.	1
3,3'-Dichlorobenzidine	ND		ug/kg	250	67.	1
2,4-Dinitrotoluene	ND		ug/kg	250	50.	1
2,6-Dinitrotoluene	ND		ug/kg	250	43.	1
Fluoranthene	ND		ug/kg	150	29.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	250	27.	1
4-Bromophenyl phenyl ether	ND		ug/kg	250	38.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	300	43.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	270	25.	1
Hexachlorobutadiene	ND		ug/kg	250	37.	1
Hexachlorocyclopentadiene	ND		ug/kg	720	230	1
Hexachloroethane	ND		ug/kg	200	41.	1
Isophorone	ND		ug/kg	230	33.	1
Naphthalene	ND		ug/kg	250	31.	1
Nitrobenzene	ND		ug/kg	230	37.	1
NDPA/DPA	ND		ug/kg	200	29.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	250	39.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	250	87.	1
Butyl benzyl phthalate	ND		ug/kg	250	63.	1
Di-n-butylphthalate	ND		ug/kg	250	48.	1
Di-n-octylphthalate	ND		ug/kg	250	85.	1

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03

Date Collected: 07/10/19 12:15

Client ID: RB24_13-15

Date Received: 07/10/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	250	23.	1
Dimethyl phthalate	ND		ug/kg	250	53.	1
Benzo(a)anthracene	ND		ug/kg	150	28.	1
Benzo(a)pyrene	ND		ug/kg	200	61.	1
Benzo(b)fluoranthene	ND		ug/kg	150	42.	1
Benzo(k)fluoranthene	ND		ug/kg	150	40.	1
Chrysene	ND		ug/kg	150	26.	1
Acenaphthylene	ND		ug/kg	200	39.	1
Anthracene	ND		ug/kg	150	49.	1
Benzo(ghi)perylene	ND		ug/kg	200	30.	1
Fluorene	ND		ug/kg	250	24.	1
Phenanthrene	ND		ug/kg	150	30.	1
Dibenzo(a,h)anthracene	ND		ug/kg	150	29.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	200	35.	1
Pyrene	ND		ug/kg	150	25.	1
Biphenyl	ND		ug/kg	570	58.	1
4-Chloroaniline	ND		ug/kg	250	46.	1
2-Nitroaniline	ND		ug/kg	250	48.	1
3-Nitroaniline	ND		ug/kg	250	47.	1
4-Nitroaniline	ND		ug/kg	250	100	1
Dibenzofuran	ND		ug/kg	250	24.	1
2-Methylnaphthalene	ND		ug/kg	300	30.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	250	26.	1
Acetophenone	ND		ug/kg	250	31.	1
2,4,6-Trichlorophenol	ND		ug/kg	150	48.	1
p-Chloro-m-cresol	ND		ug/kg	250	37.	1
2-Chlorophenol	ND		ug/kg	250	30.	1
2,4-Dichlorophenol	ND		ug/kg	230	40.	1
2,4-Dimethylphenol	ND		ug/kg	250	83.	1
2-Nitrophenol	ND		ug/kg	540	94.	1
4-Nitrophenol	ND		ug/kg	350	100	1
2,4-Dinitrophenol	ND		ug/kg	1200	120	1
4,6-Dinitro-o-cresol	ND		ug/kg	650	120	1
Pentachlorophenol	ND		ug/kg	200	55.	1
Phenol	ND		ug/kg	250	38.	1
2-Methylphenol	ND		ug/kg	250	39.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	360	39.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03
Client ID: RB24_13-15
Sample Location: BRONX, NY

Date Collected: 07/10/19 12:15
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	250	48.	1
Benzoic Acid	ND		ug/kg	810	250	1
Benzyl Alcohol	ND		ug/kg	250	77.	1
Carbazole	ND		ug/kg	250	24.	1
1,4-Dioxane	ND		ug/kg	38	12.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	63		25-120
Phenol-d6	64		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	70		30-120
2,4,6-Tribromophenol	75		10-136
4-Terphenyl-d14	69		18-120

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03
Client ID: RB24_13-15
Sample Location: BRONX, NY

Date Collected: 07/10/19 12:15
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 122,537(M)
Analytical Date: 07/26/19 19:37
Analyst: JW
Percent Solids: 66%

Extraction Method: EPA 537(M)
Extraction Date: 07/25/19 10:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	1.49	0.034	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.49	0.069	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.49	0.058	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.49	0.078	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.49	0.067	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.49	0.090	1
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	1.49	0.063	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.49	0.268	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.49	0.204	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.49	0.112	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.49	0.194	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.49	0.100	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.49	0.428	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.49	0.301	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.49	0.070	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.49	0.228	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.49	0.146	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.49	0.126	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.49	0.104	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.49	0.305	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.49	0.081	1
PFOA/PFOS, Total	ND		ug/kg	1.49	0.063	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03
Client ID: RB24_13-15
Sample Location: BRONX, NY

Date Collected: 07/10/19 12:15
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	80		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	87		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	93		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	82		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	85		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	94		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	85		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	79		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	92		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	92		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	85		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	92		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	69		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	91		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	3		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	63		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	83		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	69		26-160

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04
 Client ID: RB26_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 12:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/11/19 20:42
 Analyst: JG
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 06:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	46	J	ug/kg	140	19.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	21.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	25.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	33.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	32.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	48.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	31.	1
Fluoranthene	930		ug/kg	110	21.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	28.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	31.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	18.	1
Hexachlorobutadiene	ND		ug/kg	180	27.	1
Hexachlorocyclopentadiene	ND		ug/kg	520	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	24.	1
Naphthalene	47	J	ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	27.	1
NDPA/DPA	ND		ug/kg	140	21.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	63.	1
Butyl benzyl phthalate	ND		ug/kg	180	46.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	62.	1

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04

Date Collected: 07/10/19 12:45

Client ID: RB26_0-2

Date Received: 07/10/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	17.	1
Dimethyl phthalate	ND		ug/kg	180	38.	1
Benzo(a)anthracene	440		ug/kg	110	20.	1
Benzo(a)pyrene	410		ug/kg	140	44.	1
Benzo(b)fluoranthene	530		ug/kg	110	31.	1
Benzo(k)fluoranthene	160		ug/kg	110	29.	1
Chrysene	430		ug/kg	110	19.	1
Acenaphthylene	39	J	ug/kg	140	28.	1
Anthracene	110		ug/kg	110	35.	1
Benzo(ghi)perylene	270		ug/kg	140	21.	1
Fluorene	45	J	ug/kg	180	18.	1
Phenanthrene	610		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	61	J	ug/kg	110	21.	1
Indeno(1,2,3-cd)pyrene	270		ug/kg	140	25.	1
Pyrene	840		ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	42.	1
4-Chloroaniline	ND		ug/kg	180	33.	1
2-Nitroaniline	ND		ug/kg	180	35.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	75.	1
Dibenzofuran	45	J	ug/kg	180	17.	1
2-Methylnaphthalene	27	J	ug/kg	220	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	19.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	27.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	60.	1
2-Nitrophenol	ND		ug/kg	390	68.	1
4-Nitrophenol	ND		ug/kg	250	74.	1
2,4-Dinitrophenol	ND		ug/kg	870	85.	1
4,6-Dinitro-o-cresol	ND		ug/kg	470	87.	1
Pentachlorophenol	ND		ug/kg	140	40.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04
Client ID: RB26_0-2
Sample Location: BRONX, NY

Date Collected: 07/10/19 12:45
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	35.	1
Benzoic Acid	ND		ug/kg	590	180	1
Benzyl Alcohol	ND		ug/kg	180	56.	1
Carbazole	67	J	ug/kg	180	18.	1
1,4-Dioxane	ND		ug/kg	27	8.4	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	59		25-120
Phenol-d6	62		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	61		30-120
2,4,6-Tribromophenol	67		10-136
4-Terphenyl-d14	55		18-120

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04
 Client ID: RB26_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 12:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 122,537(M)
 Analytical Date: 07/26/19 19:53
 Analyst: JW
 Percent Solids: 91%

Extraction Method: EPA 537(M)
 Extraction Date: 07/25/19 10:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	0.947	0.022	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	0.947	0.044	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	0.947	0.037	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	0.947	0.050	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	0.947	0.043	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	0.947	0.057	1
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	0.947	0.040	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	0.947	0.170	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	0.947	0.129	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	0.947	0.071	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	0.947	0.123	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	0.947	0.064	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	0.947	0.272	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	0.947	0.191	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	0.947	0.044	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	0.947	0.145	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	0.947	0.093	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	0.947	0.080	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	0.947	0.066	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	0.947	0.194	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	0.947	0.051	1
PFOA/PFOS, Total	ND		ug/kg	0.947	0.040	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04
 Client ID: RB26_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 12:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	84		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	90		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	92		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	85		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	84		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	91		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	86		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	77		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	93		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	92		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	62		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	89		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	79		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	65		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	80		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	77		26-160

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05
 Client ID: RB26_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:00
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/11/19 21:06
 Analyst: JG
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 06:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	20.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	31.	1
1,4-Dichlorobenzene	ND		ug/kg	180	31.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	47.	1
2,4-Dinitrotoluene	ND		ug/kg	180	36.	1
2,6-Dinitrotoluene	ND		ug/kg	180	30.	1
Fluoranthene	44	J	ug/kg	110	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	27.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	30.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	510	160	1
Hexachloroethane	ND		ug/kg	140	29.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	26.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	28.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	62.	1
Butyl benzyl phthalate	ND		ug/kg	180	45.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	60.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05
 Client ID: RB26_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:00
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	16.	1
Dimethyl phthalate	ND		ug/kg	180	37.	1
Benzo(a)anthracene	40	J	ug/kg	110	20.	1
Benzo(a)pyrene	50	J	ug/kg	140	43.	1
Benzo(b)fluoranthene	49	J	ug/kg	110	30.	1
Benzo(k)fluoranthene	ND		ug/kg	110	28.	1
Chrysene	35	J	ug/kg	110	18.	1
Acenaphthylene	ND		ug/kg	140	28.	1
Anthracene	ND		ug/kg	110	35.	1
Benzo(ghi)perylene	46	J	ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	17.	1
Phenanthrene	ND		ug/kg	110	22.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	20.	1
Indeno(1,2,3-cd)pyrene	36	J	ug/kg	140	25.	1
Pyrene	53	J	ug/kg	110	18.	1
Biphenyl	ND		ug/kg	410	41.	1
4-Chloroaniline	ND		ug/kg	180	32.	1
2-Nitroaniline	ND		ug/kg	180	34.	1
3-Nitroaniline	ND		ug/kg	180	34.	1
4-Nitroaniline	ND		ug/kg	180	74.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	210	22.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	18.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	26.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	29.	1
2,4-Dimethylphenol	ND		ug/kg	180	59.	1
2-Nitrophenol	ND		ug/kg	380	67.	1
4-Nitrophenol	ND		ug/kg	250	73.	1
2,4-Dinitrophenol	ND		ug/kg	860	83.	1
4,6-Dinitro-o-cresol	ND		ug/kg	460	86.	1
Pentachlorophenol	ND		ug/kg	140	39.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	28.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	260	28.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05
Client ID: RB26_10-12
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:00
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	34.	1
Benzoic Acid	ND		ug/kg	580	180	1
Benzyl Alcohol	ND		ug/kg	180	54.	1
Carbazole	ND		ug/kg	180	17.	1
1,4-Dioxane	ND		ug/kg	27	8.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		25-120
Phenol-d6	60		10-120
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	61		30-120
2,4,6-Tribromophenol	67		10-136
4-Terphenyl-d14	58		18-120

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05
Client ID: RB26_10-12
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:00
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 122,537(M)
Analytical Date: 07/26/19 20:10
Analyst: JW
Percent Solids: 93%

Extraction Method: EPA 537(M)
Extraction Date: 07/25/19 10:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	0.942	0.021	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	0.942	0.043	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	0.942	0.037	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	0.942	0.050	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	0.942	0.043	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	0.942	0.057	1
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	0.942	0.040	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	0.942	0.169	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	0.942	0.129	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	0.942	0.071	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	0.942	0.122	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	0.942	0.063	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	0.942	0.270	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	0.942	0.190	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	0.942	0.044	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	0.942	0.144	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	0.942	0.092	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	0.942	0.080	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	0.942	0.066	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	0.942	0.193	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	0.942	0.051	1
PFOA/PFOS, Total	ND		ug/kg	0.942	0.040	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05
 Client ID: RB26_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:00
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	84		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	89		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	90		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	84		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	84		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	87		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	86		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	70		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	91		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	85		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	90		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	51		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	87		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	83		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	55		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	82		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	79		26-160

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06
 Client ID: RB26_14-16
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/11/19 21:30
 Analyst: JG
 Percent Solids: 60%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 06:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	220	28.	1
1,2,4-Trichlorobenzene	ND		ug/kg	270	31.	1
Hexachlorobenzene	ND		ug/kg	160	31.	1
Bis(2-chloroethyl)ether	ND		ug/kg	250	37.	1
2-Chloronaphthalene	ND		ug/kg	270	27.	1
1,2-Dichlorobenzene	ND		ug/kg	270	49.	1
1,3-Dichlorobenzene	ND		ug/kg	270	47.	1
1,4-Dichlorobenzene	ND		ug/kg	270	48.	1
3,3'-Dichlorobenzidine	ND		ug/kg	270	73.	1
2,4-Dinitrotoluene	ND		ug/kg	270	55.	1
2,6-Dinitrotoluene	ND		ug/kg	270	47.	1
Fluoranthene	ND		ug/kg	160	31.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	270	29.	1
4-Bromophenyl phenyl ether	ND		ug/kg	270	42.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	330	47.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	300	27.	1
Hexachlorobutadiene	ND		ug/kg	270	40.	1
Hexachlorocyclopentadiene	ND		ug/kg	780	250	1
Hexachloroethane	ND		ug/kg	220	44.	1
Isophorone	ND		ug/kg	250	36.	1
Naphthalene	ND		ug/kg	270	33.	1
Nitrobenzene	ND		ug/kg	250	40.	1
NDPA/DPA	ND		ug/kg	220	31.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	270	42.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	270	95.	1
Butyl benzyl phthalate	ND		ug/kg	270	69.	1
Di-n-butylphthalate	ND		ug/kg	270	52.	1
Di-n-octylphthalate	ND		ug/kg	270	93.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06
 Client ID: RB26_14-16
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	270	25.	1
Dimethyl phthalate	ND		ug/kg	270	58.	1
Benzo(a)anthracene	ND		ug/kg	160	31.	1
Benzo(a)pyrene	ND		ug/kg	220	67.	1
Benzo(b)fluoranthene	ND		ug/kg	160	46.	1
Benzo(k)fluoranthene	ND		ug/kg	160	44.	1
Chrysene	ND		ug/kg	160	28.	1
Acenaphthylene	ND		ug/kg	220	42.	1
Anthracene	ND		ug/kg	160	53.	1
Benzo(ghi)perylene	ND		ug/kg	220	32.	1
Fluorene	ND		ug/kg	270	27.	1
Phenanthrene	ND		ug/kg	160	33.	1
Dibenzo(a,h)anthracene	ND		ug/kg	160	32.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	220	38.	1
Pyrene	ND		ug/kg	160	27.	1
Biphenyl	ND		ug/kg	620	64.	1
4-Chloroaniline	ND		ug/kg	270	50.	1
2-Nitroaniline	ND		ug/kg	270	53.	1
3-Nitroaniline	ND		ug/kg	270	52.	1
4-Nitroaniline	ND		ug/kg	270	110	1
Dibenzofuran	ND		ug/kg	270	26.	1
2-Methylnaphthalene	ND		ug/kg	330	33.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	270	29.	1
Acetophenone	ND		ug/kg	270	34.	1
2,4,6-Trichlorophenol	ND		ug/kg	160	52.	1
p-Chloro-m-cresol	ND		ug/kg	270	41.	1
2-Chlorophenol	ND		ug/kg	270	32.	1
2,4-Dichlorophenol	ND		ug/kg	250	44.	1
2,4-Dimethylphenol	ND		ug/kg	270	90.	1
2-Nitrophenol	ND		ug/kg	590	100	1
4-Nitrophenol	ND		ug/kg	380	110	1
2,4-Dinitrophenol	ND		ug/kg	1300	130	1
4,6-Dinitro-o-cresol	ND		ug/kg	710	130	1
Pentachlorophenol	ND		ug/kg	220	60.	1
Phenol	ND		ug/kg	270	41.	1
2-Methylphenol	ND		ug/kg	270	42.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	390	43.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06
 Client ID: RB26_14-16
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	270	52.	1
Benzoic Acid	ND		ug/kg	890	280	1
Benzyl Alcohol	ND		ug/kg	270	84.	1
Carbazole	ND		ug/kg	270	27.	1
1,4-Dioxane	ND		ug/kg	41	13.	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		25-120
Phenol-d6	60		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	63		30-120
2,4,6-Tribromophenol	68		10-136
4-Terphenyl-d14	57		18-120

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06
 Client ID: RB26_14-16
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 122,537(M)
 Analytical Date: 07/26/19 20:26
 Analyst: JW
 Percent Solids: 60%

Extraction Method: EPA 537(M)
 Extraction Date: 07/25/19 10:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	1.57	0.036	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.57	0.072	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.57	0.061	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.57	0.082	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.57	0.071	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.57	0.095	1
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	1.57	0.066	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.57	0.282	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.57	0.214	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.57	0.118	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.57	0.204	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.57	0.105	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.57	0.450	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.57	0.316	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.57	0.073	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.57	0.240	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.57	0.154	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.57	0.132	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.57	0.110	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.57	0.321	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.57	0.085	1
PFOA/PFOS, Total	ND		ug/kg	1.57	0.066	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06
 Client ID: RB26_14-16
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	80		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	85		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	83		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	80		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	80		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	83		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	83		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	69		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	88		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	87		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	81		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	87		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	71		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	88		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	38		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	63		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	80		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	78		26-160

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07
 Client ID: RB23_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/11/19 21:55
 Analyst: JG
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 06:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	140	18.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	20.	1
Hexachlorobenzene	ND		ug/kg	110	20.	1
Bis(2-chloroethyl)ether	ND		ug/kg	160	24.	1
2-Chloronaphthalene	ND		ug/kg	180	18.	1
1,2-Dichlorobenzene	ND		ug/kg	180	32.	1
1,3-Dichlorobenzene	ND		ug/kg	180	30.	1
1,4-Dichlorobenzene	ND		ug/kg	180	31.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	47.	1
2,4-Dinitrotoluene	ND		ug/kg	180	35.	1
2,6-Dinitrotoluene	ND		ug/kg	180	30.	1
Fluoranthene	67	J	ug/kg	110	20.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	19.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	27.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	210	30.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	190	18.	1
Hexachlorobutadiene	ND		ug/kg	180	26.	1
Hexachlorocyclopentadiene	ND		ug/kg	500	160	1
Hexachloroethane	ND		ug/kg	140	28.	1
Isophorone	ND		ug/kg	160	23.	1
Naphthalene	ND		ug/kg	180	22.	1
Nitrobenzene	ND		ug/kg	160	26.	1
NDPA/DPA	ND		ug/kg	140	20.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	27.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	180	61.	1
Butyl benzyl phthalate	ND		ug/kg	180	44.	1
Di-n-butylphthalate	ND		ug/kg	180	34.	1
Di-n-octylphthalate	ND		ug/kg	180	60.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07
Client ID: RB23_0-2
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:55
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	180	16.	1
Dimethyl phthalate	ND		ug/kg	180	37.	1
Benzo(a)anthracene	47	J	ug/kg	110	20.	1
Benzo(a)pyrene	ND		ug/kg	140	43.	1
Benzo(b)fluoranthene	53	J	ug/kg	110	30.	1
Benzo(k)fluoranthene	ND		ug/kg	110	28.	1
Chrysene	51	J	ug/kg	110	18.	1
Acenaphthylene	ND		ug/kg	140	27.	1
Anthracene	ND		ug/kg	110	34.	1
Benzo(ghi)perylene	33	J	ug/kg	140	21.	1
Fluorene	ND		ug/kg	180	17.	1
Phenanthrene	46	J	ug/kg	110	21.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	20.	1
Indeno(1,2,3-cd)pyrene	30	J	ug/kg	140	25.	1
Pyrene	68	J	ug/kg	110	18.	1
Biphenyl	ND		ug/kg	400	41.	1
4-Chloroaniline	ND		ug/kg	180	32.	1
2-Nitroaniline	ND		ug/kg	180	34.	1
3-Nitroaniline	ND		ug/kg	180	33.	1
4-Nitroaniline	ND		ug/kg	180	73.	1
Dibenzofuran	ND		ug/kg	180	17.	1
2-Methylnaphthalene	ND		ug/kg	210	21.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	18.	1
Acetophenone	ND		ug/kg	180	22.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	34.	1
p-Chloro-m-cresol	ND		ug/kg	180	26.	1
2-Chlorophenol	ND		ug/kg	180	21.	1
2,4-Dichlorophenol	ND		ug/kg	160	28.	1
2,4-Dimethylphenol	ND		ug/kg	180	58.	1
2-Nitrophenol	ND		ug/kg	380	66.	1
4-Nitrophenol	ND		ug/kg	250	72.	1
2,4-Dinitrophenol	ND		ug/kg	850	82.	1
4,6-Dinitro-o-cresol	ND		ug/kg	460	85.	1
Pentachlorophenol	ND		ug/kg	140	39.	1
Phenol	ND		ug/kg	180	27.	1
2-Methylphenol	ND		ug/kg	180	27.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	250	28.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07
Client ID: RB23_0-2
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:55
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	180	34.	1
Benzoic Acid	ND		ug/kg	570	180	1
Benzyl Alcohol	ND		ug/kg	180	54.	1
Carbazole	ND		ug/kg	180	17.	1
1,4-Dioxane	ND		ug/kg	26	8.1	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		25-120
Phenol-d6	56		10-120
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	62		30-120
2,4,6-Tribromophenol	62		10-136
4-Terphenyl-d14	59		18-120

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07
 Client ID: RB23_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 122,537(M)
 Analytical Date: 07/26/19 20:43
 Analyst: JW
 Percent Solids: 93%

Extraction Method: EPA 537(M)
 Extraction Date: 07/25/19 10:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	0.985	0.022	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	0.985	0.045	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	0.985	0.038	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	0.985	0.052	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	0.985	0.044	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	0.985	0.060	1
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	0.985	0.041	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	0.985	0.177	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	0.985	0.134	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	0.985	0.074	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	0.985	0.128	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	0.985	0.066	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	0.985	0.283	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	0.985	0.198	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	0.985	0.046	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	0.985	0.151	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	0.985	0.097	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	0.985	0.083	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	0.985	0.069	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	0.985	0.201	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	0.985	0.053	1
PFOA/PFOS, Total	ND		ug/kg	0.985	0.041	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07
 Client ID: RB23_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	89		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	94		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	103		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	89		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	90		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	101		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	88		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	87		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	98		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	107		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	88		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	105		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	52		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	92		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	8		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	53		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	85		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	80		26-160

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08
 Client ID: RB23_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/11/19 22:19
 Analyst: JG
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 06:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	20.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	22.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	26.	1
2-Chloronaphthalene	ND		ug/kg	190	19.	1
1,2-Dichlorobenzene	ND		ug/kg	190	35.	1
1,3-Dichlorobenzene	ND		ug/kg	190	33.	1
1,4-Dichlorobenzene	ND		ug/kg	190	34.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	39.	1
2,6-Dinitrotoluene	ND		ug/kg	190	33.	1
Fluoranthene	ND		ug/kg	120	22.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	21.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	29.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	33.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	19.	1
Hexachlorobutadiene	ND		ug/kg	190	28.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	170	1
Hexachloroethane	ND		ug/kg	150	31.	1
Isophorone	ND		ug/kg	170	25.	1
Naphthalene	ND		ug/kg	190	24.	1
Nitrobenzene	ND		ug/kg	170	28.	1
NDPA/DPA	ND		ug/kg	150	22.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	30.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	190	67.	1
Butyl benzyl phthalate	ND		ug/kg	190	49.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	66.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08
Client ID: RB23_10-12
Sample Location: BRONX, NY

Date Collected: 07/10/19 14:05
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	190	18.	1
Dimethyl phthalate	ND		ug/kg	190	40.	1
Benzo(a)anthracene	ND		ug/kg	120	22.	1
Benzo(a)pyrene	ND		ug/kg	150	47.	1
Benzo(b)fluoranthene	ND		ug/kg	120	32.	1
Benzo(k)fluoranthene	ND		ug/kg	120	31.	1
Chrysene	ND		ug/kg	120	20.	1
Acenaphthylene	ND		ug/kg	150	30.	1
Anthracene	ND		ug/kg	120	38.	1
Benzo(ghi)perylene	ND		ug/kg	150	23.	1
Fluorene	ND		ug/kg	190	19.	1
Phenanthrene	ND		ug/kg	120	23.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	22.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	150	27.	1
Pyrene	ND		ug/kg	120	19.	1
Biphenyl	ND		ug/kg	440	45.	1
4-Chloroaniline	ND		ug/kg	190	35.	1
2-Nitroaniline	ND		ug/kg	190	37.	1
3-Nitroaniline	ND		ug/kg	190	36.	1
4-Nitroaniline	ND		ug/kg	190	80.	1
Dibenzofuran	ND		ug/kg	190	18.	1
2-Methylnaphthalene	ND		ug/kg	230	23.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	20.	1
Acetophenone	ND		ug/kg	190	24.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	36.	1
p-Chloro-m-cresol	ND		ug/kg	190	29.	1
2-Chlorophenol	ND		ug/kg	190	23.	1
2,4-Dichlorophenol	ND		ug/kg	170	31.	1
2,4-Dimethylphenol	ND		ug/kg	190	64.	1
2-Nitrophenol	ND		ug/kg	420	72.	1
4-Nitrophenol	ND		ug/kg	270	79.	1
2,4-Dinitrophenol	ND		ug/kg	930	90.	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	93.	1
Pentachlorophenol	ND		ug/kg	150	42.	1
Phenol	ND		ug/kg	190	29.	1
2-Methylphenol	ND		ug/kg	190	30.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	30.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08
Client ID: RB23_10-12
Sample Location: BRONX, NY

Date Collected: 07/10/19 14:05
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	190	37.	1
Benzoic Acid	ND		ug/kg	620	200	1
Benzyl Alcohol	ND		ug/kg	190	59.	1
Carbazole	ND		ug/kg	190	19.	1
1,4-Dioxane	ND		ug/kg	29	8.9	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		25-120
Phenol-d6	55		10-120
Nitrobenzene-d5	56		23-120
2-Fluorobiphenyl	59		30-120
2,4,6-Tribromophenol	56		10-136
4-Terphenyl-d14	43		18-120

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08
Client ID: RB23_10-12
Sample Location: BRONX, NY

Date Collected: 07/10/19 14:05
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 122,537(M)
Analytical Date: 07/26/19 20:59
Analyst: JW
Percent Solids: 85%

Extraction Method: EPA 537(M)
Extraction Date: 07/25/19 10:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	1.02	0.023	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.02	0.047	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.02	0.040	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.02	0.054	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.02	0.046	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.02	0.062	1
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	1.02	0.043	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.02	0.184	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.02	0.140	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.02	0.077	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.02	0.133	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.02	0.069	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.02	0.294	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.02	0.206	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.02	0.048	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.02	0.157	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.02	0.100	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.02	0.087	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.02	0.072	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.02	0.210	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.02	0.055	1
PFOA/PFOS, Total	ND		ug/kg	1.02	0.043	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08
 Client ID: RB23_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	85		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	90		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	89		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	85		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	85		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	88		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	85		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	76		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	94		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	90		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	83		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	92		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	64		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	89		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	21		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	62		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	82		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	71		26-160

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09
 Client ID: RB23_13-15
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:10
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8270D
 Analytical Date: 07/11/19 22:44
 Analyst: JG
 Percent Solids: 81%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 06:24

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	21.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	23.	1
Hexachlorobenzene	ND		ug/kg	120	22.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	27.	1
2-Chloronaphthalene	ND		ug/kg	200	20.	1
1,2-Dichlorobenzene	ND		ug/kg	200	36.	1
1,3-Dichlorobenzene	ND		ug/kg	200	34.	1
1,4-Dichlorobenzene	ND		ug/kg	200	35.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	40.	1
2,6-Dinitrotoluene	ND		ug/kg	200	34.	1
Fluoranthene	ND		ug/kg	120	23.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	22.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	31.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	34.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	20.	1
Hexachlorobutadiene	ND		ug/kg	200	29.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	180	1
Hexachloroethane	ND		ug/kg	160	32.	1
Isophorone	ND		ug/kg	180	26.	1
Naphthalene	ND		ug/kg	200	24.	1
Nitrobenzene	ND		ug/kg	180	30.	1
NDPA/DPA	ND		ug/kg	160	23.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	31.	1
Bis(2-ethylhexyl)phthalate	ND		ug/kg	200	70.	1
Butyl benzyl phthalate	ND		ug/kg	200	51.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	68.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09
Client ID: RB23_13-15
Sample Location: BRONX, NY

Date Collected: 07/10/19 14:10
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Diethyl phthalate	ND		ug/kg	200	19.	1
Dimethyl phthalate	ND		ug/kg	200	42.	1
Benzo(a)anthracene	ND		ug/kg	120	23.	1
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	34.	1
Benzo(k)fluoranthene	ND		ug/kg	120	32.	1
Chrysene	ND		ug/kg	120	21.	1
Acenaphthylene	ND		ug/kg	160	31.	1
Anthracene	ND		ug/kg	120	39.	1
Benzo(ghi)perylene	ND		ug/kg	160	24.	1
Fluorene	ND		ug/kg	200	20.	1
Phenanthrene	ND		ug/kg	120	24.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	23.	1
Indeno(1,2,3-cd)pyrene	ND		ug/kg	160	28.	1
Pyrene	ND		ug/kg	120	20.	1
Biphenyl	ND		ug/kg	460	47.	1
4-Chloroaniline	ND		ug/kg	200	36.	1
2-Nitroaniline	ND		ug/kg	200	39.	1
3-Nitroaniline	ND		ug/kg	200	38.	1
4-Nitroaniline	ND		ug/kg	200	83.	1
Dibenzofuran	ND		ug/kg	200	19.	1
2-Methylnaphthalene	ND		ug/kg	240	24.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	21.	1
Acetophenone	ND		ug/kg	200	25.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
p-Chloro-m-cresol	ND		ug/kg	200	30.	1
2-Chlorophenol	ND		ug/kg	200	24.	1
2,4-Dichlorophenol	ND		ug/kg	180	32.	1
2,4-Dimethylphenol	ND		ug/kg	200	66.	1
2-Nitrophenol	ND		ug/kg	430	76.	1
4-Nitrophenol	ND		ug/kg	280	82.	1
2,4-Dinitrophenol	ND		ug/kg	960	94.	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	96.	1
Pentachlorophenol	ND		ug/kg	160	44.	1
Phenol	ND		ug/kg	200	30.	1
2-Methylphenol	ND		ug/kg	200	31.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	31.	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09
Client ID: RB23_13-15
Sample Location: BRONX, NY

Date Collected: 07/10/19 14:10
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,5-Trichlorophenol	ND		ug/kg	200	38.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	ND		ug/kg	200	20.	1
1,4-Dioxane	ND		ug/kg	30	9.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	50		25-120
Phenol-d6	55		10-120
Nitrobenzene-d5	50		23-120
2-Fluorobiphenyl	57		30-120
2,4,6-Tribromophenol	64		10-136
4-Terphenyl-d14	69		18-120

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09
 Client ID: RB23_13-15
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:10
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 122,537(M)
 Analytical Date: 07/26/19 21:16
 Analyst: JW
 Percent Solids: 81%

Extraction Method: EPA 537(M)
 Extraction Date: 07/25/19 10:12

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ug/kg	1.06	0.024	1
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.06	0.049	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.06	0.042	1
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.06	0.056	1
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.06	0.048	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.06	0.064	1
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	1.06	0.045	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.06	0.191	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.06	0.145	1
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.06	0.080	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.06	0.138	1
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.06	0.071	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.06	0.306	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.06	0.215	1
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.06	0.050	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.06	0.163	1
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.06	0.104	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.06	0.090	1
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.06	0.075	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ug/kg	1.06	0.218	1
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.06	0.058	1
PFOA/PFOS, Total	ND		ug/kg	1.06	0.045	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09
 Client ID: RB23_13-15
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:10
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	85		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	88		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	92		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	85		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	86		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	89		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	86		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	79		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	93		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	91		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	84		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	88		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	62		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	91		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	6		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	55		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	85		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	77		26-160

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-10
Client ID: SOFB05_071019
Sample Location: BRONX, NY

Date Collected: 07/10/19 14:50
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Matrix: Water
Analytical Method: 122,537(M)
Analytical Date: 07/24/19 11:01
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/23/19 08:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.09	0.427	1
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.09	0.414	1
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.09	0.249	1
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.09	0.343	1
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.09	0.236	1
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.09	0.393	1
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.09	0.247	1
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.09	1.39	1
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.09	0.720	1
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.09	0.326	1
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.09	0.527	1
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.09	0.318	1
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.09	1.27	1
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.09	0.678	1
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.09	0.272	1
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.09	1.02	1
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.09	0.607	1
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.09	0.841	1
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.09	0.389	1
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.09	0.342	1
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.09	0.259	1
PFOA/PFOS, Total	ND		ng/l	2.09	0.247	1

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-10
 Client ID: SOFB05_071019
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:50
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab						

Surrogate (Extracted Internal Standard)	% Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	107		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	110		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	118		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	119		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	112		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	116		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	110		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	83		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	110		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	112		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	97		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	76		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	84		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	93		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	27		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	77		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	83		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	77		33-143

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/11/19 14:35
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 07/11/19 06:24

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatle Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1258437-1					
Acenaphthene	ND		ug/kg	130	17.
1,2,4-Trichlorobenzene	ND		ug/kg	170	19.
Hexachlorobenzene	ND		ug/kg	100	18.
Bis(2-chloroethyl)ether	ND		ug/kg	150	22.
2-Chloronaphthalene	ND		ug/kg	170	16.
1,2-Dichlorobenzene	ND		ug/kg	170	30.
1,3-Dichlorobenzene	ND		ug/kg	170	28.
1,4-Dichlorobenzene	ND		ug/kg	170	29.
3,3'-Dichlorobenzidine	ND		ug/kg	170	44.
2,4-Dinitrotoluene	ND		ug/kg	170	33.
2,6-Dinitrotoluene	ND		ug/kg	170	28.
Fluoranthene	ND		ug/kg	100	19.
4-Chlorophenyl phenyl ether	ND		ug/kg	170	18.
4-Bromophenyl phenyl ether	ND		ug/kg	170	25.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	28.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	17.
Hexachlorobutadiene	ND		ug/kg	170	24.
Hexachlorocyclopentadiene	ND		ug/kg	470	150
Hexachloroethane	ND		ug/kg	130	27.
Isophorone	ND		ug/kg	150	22.
Naphthalene	ND		ug/kg	170	20.
Nitrobenzene	ND		ug/kg	150	24.
NDPA/DPA	ND		ug/kg	130	19.
n-Nitrosodi-n-propylamine	ND		ug/kg	170	26.
Bis(2-ethylhexyl)phthalate	ND		ug/kg	170	57.
Butyl benzyl phthalate	ND		ug/kg	170	42.
Di-n-butylphthalate	ND		ug/kg	170	31.
Di-n-octylphthalate	ND		ug/kg	170	56.
Diethyl phthalate	ND		ug/kg	170	15.

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 07/11/19 14:35
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 07/11/19 06:24

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1258437-1					
Dimethyl phthalate	ND		ug/kg	170	35.
Benzo(a)anthracene	ND		ug/kg	100	19.
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	100	28.
Benzo(k)fluoranthene	ND		ug/kg	100	26.
Chrysene	ND		ug/kg	100	17.
Acenaphthylene	ND		ug/kg	130	26.
Anthracene	ND		ug/kg	100	32.
Benzo(ghi)perylene	ND		ug/kg	130	20.
Fluorene	ND		ug/kg	170	16.
Phenanthrene	ND		ug/kg	100	20.
Dibenzo(a,h)anthracene	ND		ug/kg	100	19.
Indeno(1,2,3-cd)pyrene	ND		ug/kg	130	23.
Pyrene	ND		ug/kg	100	16.
Biphenyl	ND		ug/kg	380	38.
4-Chloroaniline	ND		ug/kg	170	30.
2-Nitroaniline	ND		ug/kg	170	32.
3-Nitroaniline	ND		ug/kg	170	31.
4-Nitroaniline	ND		ug/kg	170	69.
Dibenzofuran	ND		ug/kg	170	16.
2-Methylnaphthalene	ND		ug/kg	200	20.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	170	17.
Acetophenone	ND		ug/kg	170	20.
2,4,6-Trichlorophenol	ND		ug/kg	100	31.
p-Chloro-m-cresol	ND		ug/kg	170	25.
2-Chlorophenol	ND		ug/kg	170	20.
2,4-Dichlorophenol	ND		ug/kg	150	27.
2,4-Dimethylphenol	ND		ug/kg	170	55.
2-Nitrophenol	ND		ug/kg	360	62.

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8270D
Analytical Date: 07/11/19 14:35
Analyst: EK

Extraction Method: EPA 3546
Extraction Date: 07/11/19 06:24

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-09 Batch: WG1258437-1					
4-Nitrophenol	ND		ug/kg	230	68.
2,4-Dinitrophenol	ND		ug/kg	800	77.
4,6-Dinitro-o-cresol	ND		ug/kg	430	80.
Pentachlorophenol	ND		ug/kg	130	36.
Phenol	ND		ug/kg	170	25.
2-Methylphenol	ND		ug/kg	170	26.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	26.
2,4,5-Trichlorophenol	ND		ug/kg	170	32.
Benzoic Acid	ND		ug/kg	540	170
Benzyl Alcohol	ND		ug/kg	170	51.
Carbazole	ND		ug/kg	170	16.
1,4-Dioxane	ND		ug/kg	25	7.6

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	72		25-120
Phenol-d6	73		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	69		10-136
4-Terphenyl-d14	78		18-120

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 07/24/19 11:34
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/23/19 08:45

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 10 Batch: WG1263200-1					
Perfluorobutanoic Acid (PFBA)	ND		ng/l	2.00	0.408
Perfluoropentanoic Acid (PFPeA)	ND		ng/l	2.00	0.396
Perfluorobutanesulfonic Acid (PFBS)	ND		ng/l	2.00	0.238
Perfluorohexanoic Acid (PFHxA)	ND		ng/l	2.00	0.328
Perfluoroheptanoic Acid (PFHpA)	ND		ng/l	2.00	0.225
Perfluorohexanesulfonic Acid (PFHxS)	ND		ng/l	2.00	0.376
Perfluorooctanoic Acid (PFOA)	ND		ng/l	2.00	0.236
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ng/l	2.00	1.33
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ng/l	2.00	0.688
Perfluorononanoic Acid (PFNA)	ND		ng/l	2.00	0.312
Perfluorooctanesulfonic Acid (PFOS)	ND		ng/l	2.00	0.504
Perfluorodecanoic Acid (PFDA)	ND		ng/l	2.00	0.304
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ng/l	2.00	1.21
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ng/l	2.00	0.648
Perfluoroundecanoic Acid (PFUnA)	ND		ng/l	2.00	0.260
Perfluorodecanesulfonic Acid (PFDS)	ND		ng/l	2.00	0.980
Perfluorooctanesulfonamide (FOSA)	ND		ng/l	2.00	0.580
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ng/l	2.00	0.804
Perfluorododecanoic Acid (PFDoA)	ND		ng/l	2.00	0.372
Perfluorotridecanoic Acid (PFTrDA)	ND		ng/l	2.00	0.327
Perfluorotetradecanoic Acid (PFTA)	ND		ng/l	2.00	0.248
PFOA/PFOS, Total	ND		ng/l	2.00	0.236

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 07/24/19 11:34
Analyst: JW

Extraction Method: EPA 537
Extraction Date: 07/23/19 08:45

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 10 Batch: WG1263200-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	119		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	122		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	126		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	126		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	123		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	123		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	114		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	89		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	114		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	112		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	106		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	87		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	99		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	104		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	48		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	91		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	94		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	89		33-143

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 07/26/19 21:33
Analyst: JW

Extraction Method: EPA 537(M)
Extraction Date: 07/25/19 10:12

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-09 Batch: WG1264347-1					
Perfluorobutanoic Acid (PFBA)	0.104	J	ug/kg	1.00	0.023
Perfluoropentanoic Acid (PFPeA)	ND		ug/kg	1.00	0.046
Perfluorobutanesulfonic Acid (PFBS)	ND		ug/kg	1.00	0.039
Perfluorohexanoic Acid (PFHxA)	ND		ug/kg	1.00	0.053
Perfluoroheptanoic Acid (PFHpA)	ND		ug/kg	1.00	0.045
Perfluorohexanesulfonic Acid (PFHxS)	ND		ug/kg	1.00	0.061
Perfluorooctanoic Acid (PFOA)	ND		ug/kg	1.00	0.042
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	ND		ug/kg	1.00	0.180
Perfluoroheptanesulfonic Acid (PFHpS)	ND		ug/kg	1.00	0.136
Perfluorononanoic Acid (PFNA)	ND		ug/kg	1.00	0.075
Perfluorooctanesulfonic Acid (PFOS)	ND		ug/kg	1.00	0.130
Perfluorodecanoic Acid (PFDA)	ND		ug/kg	1.00	0.067
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	ND		ug/kg	1.00	0.287
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	ND		ug/kg	1.00	0.202
Perfluoroundecanoic Acid (PFUnA)	ND		ug/kg	1.00	0.047
Perfluorodecanesulfonic Acid (PFDS)	ND		ug/kg	1.00	0.153
Perfluorooctanesulfonamide (FOSA)	ND		ug/kg	1.00	0.098
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	ND		ug/kg	1.00	0.085
Perfluorododecanoic Acid (PFDoA)	ND		ug/kg	1.00	0.070
Perfluorotridecanoic Acid (PFTTrDA)	ND		ug/kg	1.00	0.204
Perfluorotetradecanoic Acid (PFTA)	ND		ug/kg	1.00	0.054
PFOA/PFOS, Total	ND		ug/kg	1.00	0.042

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 122,537(M)
Analytical Date: 07/26/19 21:33
Analyst: JW

Extraction Method: EPA 537(M)
Extraction Date: 07/25/19 10:12

Parameter	Result	Qualifier	Units	RL	MDL
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab for sample(s): 01-09 Batch: WG1264347-1					

Surrogate (Extracted Internal Standard)	%Recovery	Qualifier	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	74		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	79		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	93		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	77		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	80		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	96		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	84		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	85		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	91		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	95		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	86		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	93		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	73		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	93		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	1		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	62		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	83		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	78		26-160

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1258437-2 WG1258437-3								
Acenaphthene	76		63		31-137	19		50
1,2,4-Trichlorobenzene	75		60		38-107	22		50
Hexachlorobenzene	79		65		40-140	19		50
Bis(2-chloroethyl)ether	73		60		40-140	20		50
2-Chloronaphthalene	82		66		40-140	22		50
1,2-Dichlorobenzene	73		58		40-140	23		50
1,3-Dichlorobenzene	72		58		40-140	22		50
1,4-Dichlorobenzene	71		57		28-104	22		50
3,3'-Dichlorobenzidine	64		60		40-140	6		50
2,4-Dinitrotoluene	81		66		40-132	20		50
2,6-Dinitrotoluene	87		71		40-140	20		50
Fluoranthene	80		64		40-140	22		50
4-Chlorophenyl phenyl ether	78		64		40-140	20		50
4-Bromophenyl phenyl ether	82		67		40-140	20		50
Bis(2-chloroisopropyl)ether	72		56		40-140	25		50
Bis(2-chloroethoxy)methane	80		62		40-117	25		50
Hexachlorobutadiene	76		62		40-140	20		50
Hexachlorocyclopentadiene	84		69		40-140	20		50
Hexachloroethane	72		58		40-140	22		50
Isophorone	78		61		40-140	24		50
Naphthalene	77		60		40-140	25		50
Nitrobenzene	75		59		40-140	24		50
NDPA/DPA	80		66		36-157	19		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1258437-2 WG1258437-3								
n-Nitrosodi-n-propylamine	79		60		32-121	27		50
Bis(2-ethylhexyl)phthalate	86		70		40-140	21		50
Butyl benzyl phthalate	84		68		40-140	21		50
Di-n-butylphthalate	82		67		40-140	20		50
Di-n-octylphthalate	81		67		40-140	19		50
Diethyl phthalate	78		65		40-140	18		50
Dimethyl phthalate	85		69		40-140	21		50
Benzo(a)anthracene	76		63		40-140	19		50
Benzo(a)pyrene	81		66		40-140	20		50
Benzo(b)fluoranthene	77		63		40-140	20		50
Benzo(k)fluoranthene	78		64		40-140	20		50
Chrysene	74		62		40-140	18		50
Acenaphthylene	85		67		40-140	24		50
Anthracene	79		65		40-140	19		50
Benzo(ghi)perylene	75		60		40-140	22		50
Fluorene	78		65		40-140	18		50
Phenanthrene	77		63		40-140	20		50
Dibenzo(a,h)anthracene	76		60		40-140	24		50
Indeno(1,2,3-cd)pyrene	76		61		40-140	22		50
Pyrene	80		64		35-142	22		50
Biphenyl	89		70		54-104	24		50
4-Chloroaniline	56		45		40-140	22		50
2-Nitroaniline	86		68		47-134	23		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1258437-2 WG1258437-3								
3-Nitroaniline	76		65		26-129	16		50
4-Nitroaniline	87		71		41-125	20		50
Dibenzofuran	78		63		40-140	21		50
2-Methylnaphthalene	78		62		40-140	23		50
1,2,4,5-Tetrachlorobenzene	85		68		40-117	22		50
Acetophenone	84		65		14-144	26		50
2,4,6-Trichlorophenol	83		67		30-130	21		50
p-Chloro-m-cresol	88		68		26-103	26		50
2-Chlorophenol	79		63		25-102	23		50
2,4-Dichlorophenol	85		68		30-130	22		50
2,4-Dimethylphenol	89		70		30-130	24		50
2-Nitrophenol	81		64		30-130	23		50
4-Nitrophenol	80		65		11-114	21		50
2,4-Dinitrophenol	61		53		4-130	14		50
4,6-Dinitro-o-cresol	82		69		10-130	17		50
Pentachlorophenol	86		70		17-109	21		50
Phenol	81		64		26-90	23		50
2-Methylphenol	82		65		30-130	23		50
3-Methylphenol/4-Methylphenol	84		66		30-130	24		50
2,4,5-Trichlorophenol	88		73		30-130	19		50
Benzoic Acid	50		41		10-110	20		50
Benzyl Alcohol	84		65		40-140	26		50
Carbazole	79		65		54-128	19		50

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-09 Batch: WG1258437-2 WG1258437-3								
1,4-Dioxane	59		51		40-140	15		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	76		68		25-120
Phenol-d6	80		71		10-120
Nitrobenzene-d5	76		67		23-120
2-Fluorobiphenyl	83		75		30-120
2,4,6-Tribromophenol	81		77		10-136
4-Terphenyl-d14	81		76		18-120

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS		LCSD		%Recovery Limits	RPD	Qual	RPD Limits
	%Recovery	Qual	%Recovery	Qual				
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 10 Batch: WG1263200-2 WG1263200-3								
Perfluorobutanoic Acid (PFBA)	93		97		67-148	4		30
Perfluoropentanoic Acid (PFPeA)	96		100		63-161	4		30
Perfluorobutanesulfonic Acid (PFBS)	91		93		65-157	2		30
Perfluorohexanoic Acid (PFHxA)	102		105		69-168	3		30
Perfluoroheptanoic Acid (PFHpA)	93		97		58-159	4		30
Perfluorohexanesulfonic Acid (PFHxS)	95		104		69-177	9		30
Perfluorooctanoic Acid (PFOA)	99		99		63-159	0		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	102		98		49-187	4		30
Perfluoroheptanesulfonic Acid (PFHpS)	100		95		61-179	5		30
Perfluorononanoic Acid (PFNA)	98		105		68-171	7		30
Perfluorooctanesulfonic Acid (PFOS)	84		84		52-151	0		30
Perfluorodecanoic Acid (PFDA)	101		102		63-171	1		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	99		96		56-173	3		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	105		112		60-166	6		30
Perfluoroundecanoic Acid (PFUnA)	88		93		60-153	6		30
Perfluorodecanesulfonic Acid (PFDS)	94		93		38-156	1		30
Perfluorooctanesulfonamide (FOSA)	93		95		46-170	2		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	97		100		45-170	3		30
Perfluorododecanoic Acid (PFDoA)	92		98		67-153	6		30
Perfluorotridecanoic Acid (PFTrDA)	88		91		48-158	3		30
Perfluorotetradecanoic Acid (PFTA)	104		107		59-182	3		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS		LCSD		%Recovery		RPD	RPD	
	%Recovery	Qual	%Recovery	Qual	Limits	Qual		Limits	
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 10 Batch: WG1263200-2 WG1263200-3									

Surrogate (Extracted Internal Standard)	LCS		LCSD		Acceptance Criteria
	%Recovery	Qual	%Recovery	Qual	
Perfluoro[13C4]Butanoic Acid (MPFBA)	107		117		2-156
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	110		121		16-173
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	112		119		31-159
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	111		123		21-145
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	107		118		30-139
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	112		115		47-153
Perfluoro[13C8]Octanoic Acid (M8PFOA)	101		114		36-149
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	85		93		1-244
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	104		112		34-146
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	100		115		42-146
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	91		108		38-144
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	85		94		7-170
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	79		91		1-181
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	88		105		40-144
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	50		57		1-87
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	77		88		23-146
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	82		95		24-161
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	78		93		33-143

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-09 Batch: WG1264347-2 WG1264347-3								
Perfluorobutanoic Acid (PFBA)	113		110		71-135	3		30
Perfluoropentanoic Acid (PFPeA)	119		118		69-132	1		30
Perfluorobutanesulfonic Acid (PFBS)	114		110		72-128	4		30
Perfluorohexanoic Acid (PFHxA)	124		122		70-132	2		30
Perfluoroheptanoic Acid (PFHpA)	110		108		71-131	2		30
Perfluorohexanesulfonic Acid (PFHxS)	116		109		67-130	6		30
Perfluorooctanoic Acid (PFOA)	116		115		69-133	1		30
1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS)	115		112		64-140	3		30
Perfluoroheptanesulfonic Acid (PFHpS)	122		112		70-132	9		30
Perfluorononanoic Acid (PFNA)	120		117		72-129	3		30
Perfluorooctanesulfonic Acid (PFOS)	106		103		68-136	3		30
Perfluorodecanoic Acid (PFDA)	120		117		69-133	3		30
1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2FTS)	124		115		65-137	8		30
N-Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	108		117		63-144	8		30
Perfluoroundecanoic Acid (PFUnA)	103		103		64-136	0		30
Perfluorodecanesulfonic Acid (PFDS)	122		121		59-134	1		30
Perfluorooctanesulfonamide (FOSA)	134		113		67-137	17		30
N-Ethyl Perfluorooctanesulfonamidoacetic Acid (NEtFOSAA)	92		105		61-139	13		30
Perfluorododecanoic Acid (PFDoA)	112		106		69-135	6		30
Perfluorotridecanoic Acid (PFTrDA)	112		108		66-139	4		30
Perfluorotetradecanoic Acid (PFTA)	124		122		69-133	2		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Perfluorinated Alkyl Acids by Isotope Dilution - Mansfield Lab Associated sample(s): 01-09 Batch: WG1264347-2 WG1264347-3								

Surrogate (Extracted Internal Standard)	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Perfluoro[13C4]Butanoic Acid (MPFBA)	79		74		60-153
Perfluoro[13C5]Pentanoic Acid (M5PFPEA)	83		79		65-182
Perfluoro[2,3,4-13C3]Butanesulfonic Acid (M3PFBS)	90		89		70-151
Perfluoro[1,2,3,4,6-13C5]Hexanoic Acid (M5PFHxA)	78		77		61-147
Perfluoro[1,2,3,4-13C4]Heptanoic Acid (M4PFHpA)	80		80		62-149
Perfluoro[1,2,3-13C3]Hexanesulfonic Acid (M3PFHxS)	90		93		63-166
Perfluoro[13C8]Octanoic Acid (M8PFOA)	82		82		62-152
1H,1H,2H,2H-Perfluoro[1,2-13C2]Octanesulfonic Acid (M2-6:2FTS)	92		93		32-182
Perfluoro[13C9]Nonanoic Acid (M9PFNA)	87		89		61-154
Perfluoro[13C8]Octanesulfonic Acid (M8PFOS)	88		85		65-151
Perfluoro[1,2,3,4,5,6-13C6]Decanoic Acid (M6PFDA)	82		83		65-150
1H,1H,2H,2H-Perfluoro[1,2-13C2]Decanesulfonic Acid (M2-8:2FTS)	94		94		25-186
N-Deuteriomethylperfluoro-1-octanesulfonamidoacetic Acid (d3-NMeFOSAA)	74		72		45-137
Perfluoro[1,2,3,4,5,6,7-13C7]Undecanoic Acid (M7-PFUDA)	86		88		64-158
Perfluoro[13C8]Octanesulfonamide (M8FOSA)	2		2		1-125
N-Deuterioethylperfluoro-1-octanesulfonamidoacetic Acid (d5-NEtFOSAA)	74		71		42-136
Perfluoro[1,2-13C2]Dodecanoic Acid (MPFDOA)	81		85		56-148
Perfluoro[1,2-13C2]Tetradecanoic Acid (M2PFTEDA)	74		79		26-160

PCBS

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01
 Client ID: RB24_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 07/12/19 01:59
 Analyst: HT
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 10:09
 Cleanup Method: EPA 3665A
 Cleanup Date: 07/11/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.8	3.26	1	A
Aroclor 1221	ND		ug/kg	36.8	3.68	1	A
Aroclor 1232	ND		ug/kg	36.8	7.79	1	A
Aroclor 1242	ND		ug/kg	36.8	4.96	1	A
Aroclor 1248	ND		ug/kg	36.8	5.52	1	A
Aroclor 1254	ND		ug/kg	36.8	4.02	1	A
Aroclor 1260	ND		ug/kg	36.8	6.79	1	A
Aroclor 1262	ND		ug/kg	36.8	4.67	1	A
Aroclor 1268	ND		ug/kg	36.8	3.81	1	A
PCBs, Total	ND		ug/kg	36.8	3.26	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64		30-150	A
Decachlorobiphenyl	67		30-150	A
2,4,5,6-Tetrachloro-m-xylene	63		30-150	B
Decachlorobiphenyl	78		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02
 Client ID: RB24_8-10
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 07/12/19 02:12
 Analyst: HT
 Percent Solids: 94%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 10:09
 Cleanup Method: EPA 3665A
 Cleanup Date: 07/11/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.2	3.12	1	A
Aroclor 1221	ND		ug/kg	35.2	3.52	1	A
Aroclor 1232	ND		ug/kg	35.2	7.46	1	A
Aroclor 1242	ND		ug/kg	35.2	4.74	1	A
Aroclor 1248	ND		ug/kg	35.2	5.28	1	A
Aroclor 1254	4.02	J	ug/kg	35.2	3.85	1	B
Aroclor 1260	ND		ug/kg	35.2	6.50	1	A
Aroclor 1262	ND		ug/kg	35.2	4.47	1	A
Aroclor 1268	ND		ug/kg	35.2	3.64	1	A
PCBs, Total	4.02	J	ug/kg	35.2	3.12	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	59		30-150	B
Decachlorobiphenyl	72		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03
Client ID: RB24_13-15
Sample Location: BRONX, NY

Date Collected: 07/10/19 12:15
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 07/12/19 02:24
Analyst: HT
Percent Solids: 66%

Extraction Method: EPA 3546
Extraction Date: 07/11/19 10:09
Cleanup Method: EPA 3665A
Cleanup Date: 07/11/19
Cleanup Method: EPA 3660B
Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	47.8	4.24	1	A
Aroclor 1221	ND		ug/kg	47.8	4.79	1	A
Aroclor 1232	ND		ug/kg	47.8	10.1	1	A
Aroclor 1242	ND		ug/kg	47.8	6.44	1	A
Aroclor 1248	ND		ug/kg	47.8	7.17	1	A
Aroclor 1254	ND		ug/kg	47.8	5.23	1	A
Aroclor 1260	ND		ug/kg	47.8	8.83	1	B
Aroclor 1262	ND		ug/kg	47.8	6.07	1	A
Aroclor 1268	ND		ug/kg	47.8	4.95	1	A
PCBs, Total	ND		ug/kg	47.8	4.24	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	58		30-150	A
Decachlorobiphenyl	61		30-150	A
2,4,5,6-Tetrachloro-m-xylene	55		30-150	B
Decachlorobiphenyl	65		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04
 Client ID: RB26_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 12:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 07/12/19 02:36
 Analyst: HT
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 10:09
 Cleanup Method: EPA 3665A
 Cleanup Date: 07/11/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	36.3	3.22	1	A
Aroclor 1221	ND		ug/kg	36.3	3.64	1	A
Aroclor 1232	ND		ug/kg	36.3	7.69	1	A
Aroclor 1242	ND		ug/kg	36.3	4.89	1	A
Aroclor 1248	ND		ug/kg	36.3	5.44	1	A
Aroclor 1254	ND		ug/kg	36.3	3.97	1	A
Aroclor 1260	ND		ug/kg	36.3	6.70	1	A
Aroclor 1262	ND		ug/kg	36.3	4.61	1	A
Aroclor 1268	ND		ug/kg	36.3	3.76	1	A
PCBs, Total	ND		ug/kg	36.3	3.22	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	72		30-150	A
Decachlorobiphenyl	76		30-150	A
2,4,5,6-Tetrachloro-m-xylene	70		30-150	B
Decachlorobiphenyl	86		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05
Client ID: RB26_10-12
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:00
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 07/12/19 02:48
Analyst: HT
Percent Solids: 93%

Extraction Method: EPA 3546
Extraction Date: 07/11/19 10:09
Cleanup Method: EPA 3665A
Cleanup Date: 07/11/19
Cleanup Method: EPA 3660B
Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	34.7	3.08	1	A
Aroclor 1221	ND		ug/kg	34.7	3.48	1	A
Aroclor 1232	ND		ug/kg	34.7	7.35	1	A
Aroclor 1242	ND		ug/kg	34.7	4.68	1	A
Aroclor 1248	ND		ug/kg	34.7	5.20	1	A
Aroclor 1254	ND		ug/kg	34.7	3.79	1	A
Aroclor 1260	ND		ug/kg	34.7	6.41	1	A
Aroclor 1262	ND		ug/kg	34.7	4.40	1	A
Aroclor 1268	ND		ug/kg	34.7	3.59	1	A
PCBs, Total	ND		ug/kg	34.7	3.08	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	65		30-150	A
Decachlorobiphenyl	68		30-150	A
2,4,5,6-Tetrachloro-m-xylene	65		30-150	B
Decachlorobiphenyl	75		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06
 Client ID: RB26_14-16
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 07/12/19 03:00
 Analyst: HT
 Percent Solids: 60%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 10:09
 Cleanup Method: EPA 3665A
 Cleanup Date: 07/11/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	54.5	4.84	1	A
Aroclor 1221	ND		ug/kg	54.5	5.46	1	A
Aroclor 1232	ND		ug/kg	54.5	11.6	1	A
Aroclor 1242	ND		ug/kg	54.5	7.35	1	A
Aroclor 1248	ND		ug/kg	54.5	8.18	1	A
Aroclor 1254	16.2	J	ug/kg	54.5	5.96	1	B
Aroclor 1260	ND		ug/kg	54.5	10.1	1	A
Aroclor 1262	ND		ug/kg	54.5	6.92	1	A
Aroclor 1268	ND		ug/kg	54.5	5.65	1	A
PCBs, Total	16.2	J	ug/kg	54.5	4.84	1	B

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	66		30-150	A
Decachlorobiphenyl	74		30-150	A
2,4,5,6-Tetrachloro-m-xylene	61		30-150	B
Decachlorobiphenyl	77		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07
 Client ID: RB23_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8082A
 Analytical Date: 07/12/19 03:13
 Analyst: HT
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 10:09
 Cleanup Method: EPA 3665A
 Cleanup Date: 07/11/19
 Cleanup Method: EPA 3660B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	35.1	3.12	1	A
Aroclor 1221	ND		ug/kg	35.1	3.52	1	A
Aroclor 1232	ND		ug/kg	35.1	7.44	1	A
Aroclor 1242	ND		ug/kg	35.1	4.73	1	A
Aroclor 1248	ND		ug/kg	35.1	5.26	1	A
Aroclor 1254	ND		ug/kg	35.1	3.84	1	A
Aroclor 1260	ND		ug/kg	35.1	6.48	1	A
Aroclor 1262	ND		ug/kg	35.1	4.46	1	A
Aroclor 1268	ND		ug/kg	35.1	3.64	1	A
PCBs, Total	ND		ug/kg	35.1	3.12	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	61		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	68		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08
Client ID: RB23_10-12
Sample Location: BRONX, NY

Date Collected: 07/10/19 14:05
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 07/12/19 03:25
Analyst: HT
Percent Solids: 85%

Extraction Method: EPA 3546
Extraction Date: 07/11/19 10:09
Cleanup Method: EPA 3665A
Cleanup Date: 07/11/19
Cleanup Method: EPA 3660B
Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	37.2	3.30	1	A
Aroclor 1221	ND		ug/kg	37.2	3.72	1	A
Aroclor 1232	ND		ug/kg	37.2	7.88	1	A
Aroclor 1242	ND		ug/kg	37.2	5.01	1	A
Aroclor 1248	ND		ug/kg	37.2	5.58	1	A
Aroclor 1254	ND		ug/kg	37.2	4.07	1	A
Aroclor 1260	ND		ug/kg	37.2	6.87	1	A
Aroclor 1262	ND		ug/kg	37.2	4.72	1	A
Aroclor 1268	ND		ug/kg	37.2	3.85	1	A
PCBs, Total	ND		ug/kg	37.2	3.30	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	62		30-150	A
Decachlorobiphenyl	50		30-150	A
2,4,5,6-Tetrachloro-m-xylene	61		30-150	B
Decachlorobiphenyl	55		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09
Client ID: RB23_13-15
Sample Location: BRONX, NY

Date Collected: 07/10/19 14:10
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:

Matrix: Soil
Analytical Method: 1,8082A
Analytical Date: 07/12/19 03:37
Analyst: HT
Percent Solids: 81%

Extraction Method: EPA 3546
Extraction Date: 07/11/19 10:09
Cleanup Method: EPA 3665A
Cleanup Date: 07/11/19
Cleanup Method: EPA 3660B
Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - Westborough Lab							
Aroclor 1016	ND		ug/kg	40.2	3.57	1	A
Aroclor 1221	ND		ug/kg	40.2	4.03	1	A
Aroclor 1232	ND		ug/kg	40.2	8.52	1	A
Aroclor 1242	ND		ug/kg	40.2	5.42	1	A
Aroclor 1248	ND		ug/kg	40.2	6.03	1	A
Aroclor 1254	ND		ug/kg	40.2	4.40	1	A
Aroclor 1260	ND		ug/kg	40.2	7.43	1	A
Aroclor 1262	ND		ug/kg	40.2	5.10	1	A
Aroclor 1268	ND		ug/kg	40.2	4.16	1	A
PCBs, Total	ND		ug/kg	40.2	3.57	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	69		30-150	A
Decachlorobiphenyl	75		30-150	A
2,4,5,6-Tetrachloro-m-xylene	68		30-150	B
Decachlorobiphenyl	80		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

**Method Blank Analysis
Batch Quality Control**

Analytical Method: 1,8082A
Analytical Date: 07/12/19 01:22
Analyst: HT

Extraction Method: EPA 3546
Extraction Date: 07/11/19 10:09
Cleanup Method: EPA 3665A
Cleanup Date: 07/11/19
Cleanup Method: EPA 3660B
Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-09 Batch: WG1258585-1						
Aroclor 1016	ND		ug/kg	31.9	2.84	A
Aroclor 1221	ND		ug/kg	31.9	3.20	A
Aroclor 1232	ND		ug/kg	31.9	6.77	A
Aroclor 1242	ND		ug/kg	31.9	4.30	A
Aroclor 1248	ND		ug/kg	31.9	4.79	A
Aroclor 1254	ND		ug/kg	31.9	3.49	A
Aroclor 1260	ND		ug/kg	31.9	5.90	A
Aroclor 1262	ND		ug/kg	31.9	4.05	A
Aroclor 1268	ND		ug/kg	31.9	3.31	A
PCBs, Total	ND		ug/kg	31.9	2.84	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		30-150	A
Decachlorobiphenyl	63		30-150	A
2,4,5,6-Tetrachloro-m-xylene	60		30-150	B
Decachlorobiphenyl	68		30-150	B

Lab Control Sample Analysis Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-09 Batch: WG1258585-2 WG1258585-3									
Aroclor 1016	75		72		40-140	4		50	A
Aroclor 1260	66		64		40-140	3		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	76		72		30-150	A
Decachlorobiphenyl	74		71		30-150	A
2,4,5,6-Tetrachloro-m-xylene	73		71		30-150	B
Decachlorobiphenyl	78		75		30-150	B

PESTICIDES

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01
 Client ID: RB24_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 07/12/19 14:06
 Analyst: SL
 Percent Solids: 90%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 09:05
 Cleanup Method: EPA 3620B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.78	0.348	1	A
Lindane	ND		ug/kg	0.741	0.331	1	A
Alpha-BHC	ND		ug/kg	0.741	0.210	1	A
Beta-BHC	ND		ug/kg	1.78	0.674	1	A
Heptachlor	ND		ug/kg	0.889	0.398	1	A
Aldrin	ND		ug/kg	1.78	0.626	1	A
Heptachlor epoxide	ND		ug/kg	3.33	1.00	1	A
Endrin	ND		ug/kg	0.741	0.304	1	A
Endrin aldehyde	ND		ug/kg	2.22	0.778	1	A
Endrin ketone	ND		ug/kg	1.78	0.458	1	A
Dieldrin	ND		ug/kg	1.11	0.556	1	A
4,4'-DDE	ND		ug/kg	1.78	0.411	1	A
4,4'-DDD	ND		ug/kg	1.78	0.634	1	A
4,4'-DDT	ND		ug/kg	3.33	1.43	1	A
Endosulfan I	ND		ug/kg	1.78	0.420	1	A
Endosulfan II	ND		ug/kg	1.78	0.594	1	A
Endosulfan sulfate	ND		ug/kg	0.741	0.352	1	A
Methoxychlor	ND		ug/kg	3.33	1.04	1	A
Toxaphene	ND		ug/kg	33.3	9.33	1	A
cis-Chlordane	ND		ug/kg	2.22	0.619	1	A
trans-Chlordane	ND		ug/kg	2.22	0.587	1	A
Chlordane	ND		ug/kg	14.4	5.89	1	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01
 Client ID: RB24_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
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Organochlorine Pesticides by GC - Westborough Lab							
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Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	72		30-150	B
2,4,5,6-Tetrachloro-m-xylene	94		30-150	A
Decachlorobiphenyl	40		30-150	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01
 Client ID: RB24_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 07/12/19 17:27
 Analyst: SL
 Percent Solids: 90%
 Methylation Date: 07/12/19 03:45

Extraction Method: EPA 8151A
 Extraction Date: 07/11/19 05:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	184	11.6	1	A
2,4,5-T	ND		ug/kg	184	5.71	1	A
2,4,5-TP (Silvex)	ND		ug/kg	184	4.90	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	84		30-150	A
DCAA	75		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02
 Client ID: RB24_8-10
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 07/12/19 14:18
 Analyst: SL
 Percent Solids: 94%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 09:05
 Cleanup Method: EPA 3620B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.68	0.328	1	A
Lindane	ND		ug/kg	0.699	0.312	1	A
Alpha-BHC	ND		ug/kg	0.699	0.198	1	A
Beta-BHC	ND		ug/kg	1.68	0.636	1	A
Heptachlor	ND		ug/kg	0.838	0.376	1	A
Aldrin	ND		ug/kg	1.68	0.590	1	A
Heptachlor epoxide	ND		ug/kg	3.14	0.943	1	A
Endrin	ND		ug/kg	0.699	0.286	1	A
Endrin aldehyde	ND		ug/kg	2.10	0.734	1	A
Endrin ketone	ND		ug/kg	1.68	0.432	1	A
Dieldrin	ND		ug/kg	1.05	0.524	1	A
4,4'-DDE	ND		ug/kg	1.68	0.388	1	B
4,4'-DDD	ND		ug/kg	1.68	0.598	1	A
4,4'-DDT	ND		ug/kg	3.14	1.35	1	A
Endosulfan I	ND		ug/kg	1.68	0.396	1	A
Endosulfan II	ND		ug/kg	1.68	0.560	1	A
Endosulfan sulfate	ND		ug/kg	0.699	0.333	1	A
Methoxychlor	ND		ug/kg	3.14	0.978	1	A
Toxaphene	ND		ug/kg	31.4	8.80	1	A
cis-Chlordane	ND		ug/kg	2.10	0.584	1	A
trans-Chlordane	ND		ug/kg	2.10	0.553	1	A
Chlordane	ND		ug/kg	13.6	5.56	1	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02
 Client ID: RB24_8-10
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	85		30-150	B
Decachlorobiphenyl	57		30-150	B
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	38		30-150	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02
 Client ID: RB24_8-10
 Sample Location: BRONX, NY

Date Collected: 07/10/19 11:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 07/12/19 17:46
 Analyst: SL
 Percent Solids: 94%
 Methylation Date: 07/12/19 03:45

Extraction Method: EPA 8151A
 Extraction Date: 07/11/19 05:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	176	11.1	1	A
2,4,5-T	ND		ug/kg	176	5.47	1	A
2,4,5-TP (Silvex)	ND		ug/kg	176	4.69	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	83		30-150	A
DCAA	67		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03
 Client ID: RB24_13-15
 Sample Location: BRONX, NY

Date Collected: 07/10/19 12:15
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 07/12/19 14:31
 Analyst: SL
 Percent Solids: 66%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 09:05
 Cleanup Method: EPA 3620B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.36	0.463	1	A
Lindane	ND		ug/kg	0.985	0.440	1	A
Alpha-BHC	ND		ug/kg	0.985	0.280	1	A
Beta-BHC	ND		ug/kg	2.36	0.896	1	A
Heptachlor	ND		ug/kg	1.18	0.530	1	A
Aldrin	ND		ug/kg	2.36	0.832	1	A
Heptachlor epoxide	ND		ug/kg	4.43	1.33	1	A
Endrin	ND		ug/kg	0.985	0.404	1	A
Endrin aldehyde	ND		ug/kg	2.95	1.03	1	A
Endrin ketone	ND		ug/kg	2.36	0.609	1	A
Dieldrin	ND		ug/kg	1.48	0.739	1	A
4,4'-DDE	ND		ug/kg	2.36	0.547	1	A
4,4'-DDD	ND		ug/kg	2.36	0.843	1	A
4,4'-DDT	ND		ug/kg	4.43	1.90	1	A
Endosulfan I	ND		ug/kg	2.36	0.558	1	A
Endosulfan II	ND		ug/kg	2.36	0.790	1	A
Endosulfan sulfate	ND		ug/kg	0.985	0.469	1	A
Methoxychlor	ND		ug/kg	4.43	1.38	1	A
Toxaphene	ND		ug/kg	44.3	12.4	1	A
cis-Chlordane	ND		ug/kg	2.95	0.823	1	A
trans-Chlordane	ND		ug/kg	2.95	0.780	1	A
Chlordane	ND		ug/kg	19.2	7.83	1	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03
 Client ID: RB24_13-15
 Sample Location: BRONX, NY

Date Collected: 07/10/19 12:15
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	98		30-150	B
Decachlorobiphenyl	62		30-150	B
2,4,5,6-Tetrachloro-m-xylene	86		30-150	A
Decachlorobiphenyl	46		30-150	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03
 Client ID: RB24_13-15
 Sample Location: BRONX, NY

Date Collected: 07/10/19 12:15
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 07/12/19 18:05
 Analyst: SL
 Percent Solids: 66%
 Methylation Date: 07/12/19 03:45

Extraction Method: EPA 8151A
 Extraction Date: 07/11/19 05:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	253	16.0	1	A
2,4,5-T	ND		ug/kg	253	7.86	1	A
2,4,5-TP (Silvex)	ND		ug/kg	253	6.74	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	76		30-150	A
DCAA	66		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04
 Client ID: RB26_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 12:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 07/12/19 14:44
 Analyst: SL
 Percent Solids: 91%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 09:05
 Cleanup Method: EPA 3620B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.74	0.341	1	A
Lindane	ND		ug/kg	0.726	0.324	1	A
Alpha-BHC	ND		ug/kg	0.726	0.206	1	A
Beta-BHC	ND		ug/kg	1.74	0.660	1	A
Heptachlor	ND		ug/kg	0.871	0.390	1	A
Aldrin	ND		ug/kg	1.74	0.613	1	A
Heptachlor epoxide	ND		ug/kg	3.26	0.980	1	A
Endrin	ND		ug/kg	0.726	0.298	1	A
Endrin aldehyde	ND		ug/kg	2.18	0.762	1	A
Endrin ketone	ND		ug/kg	1.74	0.448	1	A
Dieldrin	ND		ug/kg	1.09	0.544	1	A
4,4'-DDE	ND		ug/kg	1.74	0.403	1	A
4,4'-DDD	ND		ug/kg	1.74	0.621	1	A
4,4'-DDT	ND		ug/kg	3.26	1.40	1	A
Endosulfan I	ND		ug/kg	1.74	0.411	1	A
Endosulfan II	ND		ug/kg	1.74	0.582	1	A
Endosulfan sulfate	ND		ug/kg	0.726	0.345	1	A
Methoxychlor	ND		ug/kg	3.26	1.02	1	A
Toxaphene	ND		ug/kg	32.6	9.14	1	A
cis-Chlordane	ND		ug/kg	2.18	0.607	1	A
trans-Chlordane	ND		ug/kg	2.18	0.575	1	A
Chlordane	ND		ug/kg	14.2	5.77	1	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04
 Client ID: RB26_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 12:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	80		30-150	B
Decachlorobiphenyl	89		30-150	B
2,4,5,6-Tetrachloro-m-xylene	79		30-150	A
Decachlorobiphenyl	56		30-150	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04
 Client ID: RB26_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 12:45
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 07/12/19 18:24
 Analyst: SL
 Percent Solids: 91%
 Methylation Date: 07/12/19 03:45

Extraction Method: EPA 8151A
 Extraction Date: 07/11/19 05:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	181	11.4	1	A
2,4,5-T	ND		ug/kg	181	5.61	1	A
2,4,5-TP (Silvex)	ND		ug/kg	181	4.81	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	84		30-150	A
DCAA	71		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05
 Client ID: RB26_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:00
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 07/12/19 14:56
 Analyst: SL
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 09:05
 Cleanup Method: EPA 3620B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.69	0.332	1	A
Lindane	ND		ug/kg	0.706	0.316	1	A
Alpha-BHC	ND		ug/kg	0.706	0.200	1	A
Beta-BHC	ND		ug/kg	1.69	0.642	1	A
Heptachlor	ND		ug/kg	0.847	0.380	1	A
Aldrin	ND		ug/kg	1.69	0.597	1	A
Heptachlor epoxide	ND		ug/kg	3.18	0.953	1	A
Endrin	ND		ug/kg	0.706	0.289	1	A
Endrin aldehyde	ND		ug/kg	2.12	0.741	1	A
Endrin ketone	ND		ug/kg	1.69	0.436	1	A
Dieldrin	ND		ug/kg	1.06	0.530	1	A
4,4'-DDE	ND		ug/kg	1.69	0.392	1	A
4,4'-DDD	ND		ug/kg	1.69	0.604	1	A
4,4'-DDT	ND		ug/kg	3.18	1.36	1	A
Endosulfan I	ND		ug/kg	1.69	0.400	1	A
Endosulfan II	ND		ug/kg	1.69	0.566	1	A
Endosulfan sulfate	ND		ug/kg	0.706	0.336	1	A
Methoxychlor	ND		ug/kg	3.18	0.988	1	A
Toxaphene	ND		ug/kg	31.8	8.90	1	A
cis-Chlordane	ND		ug/kg	2.12	0.590	1	A
trans-Chlordane	ND		ug/kg	2.12	0.559	1	A
Chlordane	ND		ug/kg	13.8	5.61	1	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05
 Client ID: RB26_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:00
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	94		30-150	B
Decachlorobiphenyl	77		30-150	B
2,4,5,6-Tetrachloro-m-xylene	83		30-150	A
Decachlorobiphenyl	52		30-150	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05
 Client ID: RB26_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:00
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 07/12/19 18:43
 Analyst: SL
 Percent Solids: 93%
 Methylation Date: 07/12/19 03:45

Extraction Method: EPA 8151A
 Extraction Date: 07/11/19 05:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	175	11.0	1	A
2,4,5-T	ND		ug/kg	175	5.41	1	A
2,4,5-TP (Silvex)	ND		ug/kg	175	4.64	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	77		30-150	A
DCAA	72		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06
 Client ID: RB26_14-16
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 07/12/19 15:09
 Analyst: SL
 Percent Solids: 60%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 09:05
 Cleanup Method: EPA 3620B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	2.61	0.512	1	A
Lindane	ND		ug/kg	1.09	0.487	1	A
Alpha-BHC	ND		ug/kg	1.09	0.309	1	A
Beta-BHC	ND		ug/kg	2.61	0.991	1	A
Heptachlor	ND		ug/kg	1.31	0.586	1	A
Aldrin	ND		ug/kg	2.61	0.920	1	A
Heptachlor epoxide	ND		ug/kg	4.90	1.47	1	A
Endrin	ND		ug/kg	1.09	0.446	1	A
Endrin aldehyde	ND		ug/kg	3.27	1.14	1	A
Endrin ketone	ND		ug/kg	2.61	0.673	1	A
Dieldrin	ND		ug/kg	1.63	0.817	1	A
4,4'-DDE	ND		ug/kg	2.61	0.604	1	A
4,4'-DDD	ND		ug/kg	2.61	0.932	1	A
4,4'-DDT	ND		ug/kg	4.90	2.10	1	A
Endosulfan I	ND		ug/kg	2.61	0.618	1	A
Endosulfan II	ND		ug/kg	2.61	0.873	1	A
Endosulfan sulfate	ND		ug/kg	1.09	0.518	1	A
Methoxychlor	ND		ug/kg	4.90	1.52	1	A
Toxaphene	ND		ug/kg	49.0	13.7	1	A
cis-Chlordane	ND		ug/kg	3.27	0.910	1	A
trans-Chlordane	ND		ug/kg	3.27	0.862	1	A
Chlordane	ND		ug/kg	21.2	8.66	1	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06
 Client ID: RB26_14-16
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	95		30-150	B
Decachlorobiphenyl	75		30-150	B
2,4,5,6-Tetrachloro-m-xylene	586	Q	30-150	A
Decachlorobiphenyl	55		30-150	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06
 Client ID: RB26_14-16
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 07/12/19 19:01
 Analyst: SL
 Percent Solids: 60%
 Methylation Date: 07/12/19 03:45

Extraction Method: EPA 8151A
 Extraction Date: 07/11/19 05:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	274	17.3	1	A
2,4,5-T	ND		ug/kg	274	8.51	1	A
2,4,5-TP (Silvex)	ND		ug/kg	274	7.30	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	91		30-150	A
DCAA	76		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07
 Client ID: RB23_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 07/12/19 15:22
 Analyst: SL
 Percent Solids: 93%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 09:05
 Cleanup Method: EPA 3620B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.70	0.332	1	A
Lindane	ND		ug/kg	0.706	0.316	1	A
Alpha-BHC	ND		ug/kg	0.706	0.201	1	A
Beta-BHC	ND		ug/kg	1.70	0.643	1	A
Heptachlor	ND		ug/kg	0.848	0.380	1	A
Aldrin	ND		ug/kg	1.70	0.597	1	A
Heptachlor epoxide	ND		ug/kg	3.18	0.954	1	A
Endrin	ND		ug/kg	0.706	0.290	1	A
Endrin aldehyde	ND		ug/kg	2.12	0.742	1	A
Endrin ketone	ND		ug/kg	1.70	0.436	1	A
Dieldrin	ND		ug/kg	1.06	0.530	1	A
4,4'-DDE	ND		ug/kg	1.70	0.392	1	A
4,4'-DDD	ND		ug/kg	1.70	0.605	1	A
4,4'-DDT	ND		ug/kg	3.18	1.36	1	A
Endosulfan I	ND		ug/kg	1.70	0.400	1	A
Endosulfan II	ND		ug/kg	1.70	0.566	1	A
Endosulfan sulfate	ND		ug/kg	0.706	0.336	1	A
Methoxychlor	ND		ug/kg	3.18	0.989	1	A
Toxaphene	ND		ug/kg	31.8	8.90	1	A
cis-Chlordane	ND		ug/kg	2.12	0.590	1	A
trans-Chlordane	ND		ug/kg	2.12	0.560	1	A
Chlordane	ND		ug/kg	13.8	5.62	1	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07
 Client ID: RB23_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	88		30-150	B
Decachlorobiphenyl	75		30-150	B
2,4,5,6-Tetrachloro-m-xylene	80		30-150	A
Decachlorobiphenyl	53		30-150	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07
 Client ID: RB23_0-2
 Sample Location: BRONX, NY

Date Collected: 07/10/19 13:55
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 07/12/19 19:20
 Analyst: SL
 Percent Solids: 93%
 Methylation Date: 07/12/19 03:45

Extraction Method: EPA 8151A
 Extraction Date: 07/11/19 05:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	179	11.2	1	A
2,4,5-T	ND		ug/kg	179	5.54	1	A
2,4,5-TP (Silvex)	ND		ug/kg	179	4.75	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	66		30-150	A
DCAA	55		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08
 Client ID: RB23_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 07/12/19 15:34
 Analyst: SL
 Percent Solids: 85%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 09:05
 Cleanup Method: EPA 3620B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.79	0.351	1	A
Lindane	ND		ug/kg	0.747	0.334	1	A
Alpha-BHC	ND		ug/kg	0.747	0.212	1	A
Beta-BHC	ND		ug/kg	1.79	0.680	1	A
Heptachlor	ND		ug/kg	0.896	0.402	1	A
Aldrin	ND		ug/kg	1.79	0.631	1	A
Heptachlor epoxide	ND		ug/kg	3.36	1.01	1	A
Endrin	ND		ug/kg	0.747	0.306	1	A
Endrin aldehyde	ND		ug/kg	2.24	0.784	1	A
Endrin ketone	ND		ug/kg	1.79	0.462	1	A
Dieldrin	ND		ug/kg	1.12	0.560	1	A
4,4'-DDE	ND		ug/kg	1.79	0.414	1	A
4,4'-DDD	ND		ug/kg	1.79	0.639	1	A
4,4'-DDT	ND		ug/kg	3.36	1.44	1	A
Endosulfan I	ND		ug/kg	1.79	0.423	1	A
Endosulfan II	ND		ug/kg	1.79	0.599	1	A
Endosulfan sulfate	ND		ug/kg	0.747	0.355	1	A
Methoxychlor	ND		ug/kg	3.36	1.04	1	A
Toxaphene	ND		ug/kg	33.6	9.41	1	A
cis-Chlordane	ND		ug/kg	2.24	0.624	1	A
trans-Chlordane	ND		ug/kg	2.24	0.591	1	A
Chlordane	ND		ug/kg	14.6	5.94	1	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08
 Client ID: RB23_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	87		30-150	B
Decachlorobiphenyl	73		30-150	B
2,4,5,6-Tetrachloro-m-xylene	98		30-150	A
Decachlorobiphenyl	62		30-150	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08
 Client ID: RB23_10-12
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:05
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 07/12/19 19:39
 Analyst: SL
 Percent Solids: 85%
 Methylation Date: 07/12/19 03:45

Extraction Method: EPA 8151A
 Extraction Date: 07/11/19 05:05

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	192	12.1	1	A
2,4,5-T	ND		ug/kg	192	5.96	1	A
2,4,5-TP (Silvex)	ND		ug/kg	192	5.11	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	90		30-150	A
DCAA	75		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09
 Client ID: RB23_13-15
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:10
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8081B
 Analytical Date: 07/12/19 15:47
 Analyst: SL
 Percent Solids: 81%

Extraction Method: EPA 3546
 Extraction Date: 07/11/19 09:05
 Cleanup Method: EPA 3620B
 Cleanup Date: 07/12/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							
Delta-BHC	ND		ug/kg	1.92	0.376	1	A
Lindane	ND		ug/kg	0.801	0.358	1	A
Alpha-BHC	ND		ug/kg	0.801	0.228	1	A
Beta-BHC	ND		ug/kg	1.92	0.729	1	A
Heptachlor	ND		ug/kg	0.961	0.431	1	A
Aldrin	ND		ug/kg	1.92	0.677	1	A
Heptachlor epoxide	ND		ug/kg	3.60	1.08	1	A
Endrin	ND		ug/kg	0.801	0.328	1	A
Endrin aldehyde	ND		ug/kg	2.40	0.841	1	A
Endrin ketone	ND		ug/kg	1.92	0.495	1	A
Dieldrin	ND		ug/kg	1.20	0.601	1	A
4,4'-DDE	ND		ug/kg	1.92	0.445	1	A
4,4'-DDD	ND		ug/kg	1.92	0.686	1	A
4,4'-DDT	ND		ug/kg	3.60	1.55	1	A
Endosulfan I	ND		ug/kg	1.92	0.454	1	A
Endosulfan II	ND		ug/kg	1.92	0.642	1	A
Endosulfan sulfate	ND		ug/kg	0.801	0.381	1	A
Methoxychlor	ND		ug/kg	3.60	1.12	1	A
Toxaphene	ND		ug/kg	36.0	10.1	1	A
cis-Chlordane	ND		ug/kg	2.40	0.670	1	A
trans-Chlordane	ND		ug/kg	2.40	0.634	1	A
Chlordane	ND		ug/kg	15.6	6.37	1	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09
 Client ID: RB23_13-15
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:10
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Organochlorine Pesticides by GC - Westborough Lab							

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		30-150	B
Decachlorobiphenyl	81		30-150	B
2,4,5,6-Tetrachloro-m-xylene	74		30-150	A
Decachlorobiphenyl	59		30-150	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09
 Client ID: RB23_13-15
 Sample Location: BRONX, NY

Date Collected: 07/10/19 14:10
 Date Received: 07/10/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8151A
 Analytical Date: 07/12/19 19:58
 Analyst: SL
 Percent Solids: 81%
 Methylation Date: 07/12/19 03:45

Extraction Method: EPA 8151A
 Extraction Date: 07/11/19 05:09

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Chlorinated Herbicides by GC - Westborough Lab							
2,4-D	ND		ug/kg	202	12.8	1	A
2,4,5-T	ND		ug/kg	202	6.28	1	A
2,4,5-TP (Silvex)	ND		ug/kg	202	5.39	1	A

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
DCAA	74		30-150	A
DCAA	68		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8151A
Analytical Date: 07/12/19 16:12
Analyst: KEG

Extraction Method: EPA 8151A
Extraction Date: 07/11/19 00:48

Methylation Date: 07/12/19 03:45

Parameter	Result	Qualifier	Units	RL	MDL	Column
Chlorinated Herbicides by GC - Westborough Lab for sample(s): 01-09 Batch: WG1258366-1						
2,4-D	ND		ug/kg	162	10.2	A
2,4,5-T	ND		ug/kg	162	5.03	A
2,4,5-TP (Silvex)	ND		ug/kg	162	4.32	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
DCAA	81		30-150	A
DCAA	72		30-150	B

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 07/11/19 15:13
Analyst: KEG

Extraction Method: EPA 3546
Extraction Date: 07/11/19 09:05
Cleanup Method: EPA 3620B
Cleanup Date: 07/11/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-09 Batch: WG1258538-1						
Delta-BHC	ND		ug/kg	1.55	0.304	A
Lindane	ND		ug/kg	0.646	0.289	A
Alpha-BHC	ND		ug/kg	0.646	0.184	A
Beta-BHC	ND		ug/kg	1.55	0.588	A
Heptachlor	ND		ug/kg	0.776	0.348	A
Aldrin	ND		ug/kg	1.55	0.546	A
Heptachlor epoxide	ND		ug/kg	2.91	0.873	A
Endrin	ND		ug/kg	0.646	0.265	A
Endrin aldehyde	ND		ug/kg	1.94	0.679	A
Endrin ketone	ND		ug/kg	1.55	0.399	A
Dieldrin	ND		ug/kg	0.970	0.485	A
4,4'-DDE	ND		ug/kg	1.55	0.359	A
4,4'-DDD	ND		ug/kg	1.55	0.553	A
4,4'-DDT	ND		ug/kg	2.91	1.25	A
Endosulfan I	ND		ug/kg	1.55	0.366	A
Endosulfan II	ND		ug/kg	1.55	0.518	A
Endosulfan sulfate	ND		ug/kg	0.646	0.308	A
Methoxychlor	ND		ug/kg	2.91	0.905	A
Toxaphene	ND		ug/kg	29.1	8.14	A
cis-Chlordane	ND		ug/kg	1.94	0.540	A
trans-Chlordane	ND		ug/kg	1.94	0.512	A
Chlordane	ND		ug/kg	12.6	5.14	A

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8081B
Analytical Date: 07/11/19 15:13
Analyst: KEG

Extraction Method: EPA 3546
Extraction Date: 07/11/19 09:05
Cleanup Method: EPA 3620B
Cleanup Date: 07/11/19

Parameter	Result	Qualifier	Units	RL	MDL	Column
Organochlorine Pesticides by GC - Westborough Lab for sample(s): 01-09 Batch: WG1258538-1						

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	49		30-150	B
Decachlorobiphenyl	52		30-150	B
2,4,5,6-Tetrachloro-m-xylene	49		30-150	A
Decachlorobiphenyl	57		30-150	A

Lab Control Sample Analysis Batch Quality Control

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCS %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Chlorinated Herbicides by GC - Westborough Lab Associated sample(s): 01-09 Batch: WG1258366-2 WG1258366-3									
2,4-D	96		89		30-150	8		30	A
2,4,5-T	98		94		30-150	4		30	A
2,4,5-TP (Silvex)	90		87		30-150	3		30	A

Surrogate	LCS %Recovery	Qual	LCS %Recovery	Qual	Acceptance Criteria	Column
DCAA	81		78		30-150	A
DCAA	76		70		30-150	B



Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-09 Batch: WG1258538-2 WG1258538-3									
Delta-BHC	74		85		30-150	14		30	A
Lindane	74		84		30-150	13		30	A
Alpha-BHC	78		89		30-150	13		30	A
Beta-BHC	66		75		30-150	13		30	A
Heptachlor	65		75		30-150	14		30	A
Aldrin	73		83		30-150	13		30	A
Heptachlor epoxide	74		84		30-150	13		30	A
Endrin	76		88		30-150	15		30	A
Endrin aldehyde	50		57		30-150	13		30	A
Endrin ketone	54		64		30-150	17		30	A
Dieldrin	73		85		30-150	15		30	A
4,4'-DDE	72		81		30-150	12		30	A
4,4'-DDD	63		75		30-150	17		30	A
4,4'-DDT	65		75		30-150	14		30	A
Endosulfan I	65		75		30-150	14		30	A
Endosulfan II	65		74		30-150	13		30	A
Endosulfan sulfate	44		48		30-150	9		30	A
Methoxychlor	56		65		30-150	15		30	A
cis-Chlordane	66		73		30-150	10		30	A
trans-Chlordane	65		74		30-150	13		30	A

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Project Number: 170487001

Lab Number: L1930096

Report Date: 07/29/19

Parameter	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>%Recovery</i> Limits	<i>RPD</i>	<i>Qual</i>	<i>RPD</i> Limits
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Organochlorine Pesticides by GC - Westborough Lab Associated sample(s): 01-09 Batch: WG1258538-2 WG1258538-3

<i>Surrogate</i>	<i>LCS</i> %Recovery	<i>Qual</i>	<i>LCSD</i> %Recovery	<i>Qual</i>	<i>Acceptance</i> Criteria	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	75		83		30-150	B
Decachlorobiphenyl	77		89		30-150	B
2,4,5,6-Tetrachloro-m-xylene	74		82		30-150	A
Decachlorobiphenyl	81		95		30-150	A

METALS

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01

Date Collected: 07/10/19 11:45

Client ID: RB24_0-2

Date Received: 07/10/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 90%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	2860		mg/kg	8.50	2.30	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Antimony, Total	0.935	J	mg/kg	4.25	0.323	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Arsenic, Total	5.82		mg/kg	0.850	0.177	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Barium, Total	125		mg/kg	0.850	0.148	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Beryllium, Total	0.187	J	mg/kg	0.425	0.028	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.850	0.083	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Calcium, Total	8260		mg/kg	8.50	2.98	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Chromium, Total	10.4		mg/kg	0.850	0.082	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Cobalt, Total	4.92		mg/kg	1.70	0.141	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Copper, Total	35.1		mg/kg	0.850	0.219	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Iron, Total	11000		mg/kg	4.25	0.768	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Lead, Total	174		mg/kg	4.25	0.228	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Magnesium, Total	1070		mg/kg	8.50	1.31	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Manganese, Total	112		mg/kg	0.850	0.135	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Mercury, Total	0.367		mg/kg	0.070	0.046	1	07/11/19 07:30	07/11/19 12:29	EPA 7471B	1,7471B	GD
Nickel, Total	12.7		mg/kg	2.12	0.206	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Potassium, Total	885		mg/kg	212	12.2	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Selenium, Total	0.332	J	mg/kg	1.70	0.219	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.850	0.241	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Sodium, Total	402		mg/kg	170	2.68	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.70	0.268	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Vanadium, Total	12.0		mg/kg	0.850	0.173	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
Zinc, Total	161		mg/kg	4.25	0.249	2	07/11/19 09:10	07/11/19 18:07	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	10		mg/kg	0.89	0.89	1		07/11/19 22:00	NA	107,-	



Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02

Date Collected: 07/10/19 11:55

Client ID: RB24_8-10

Date Received: 07/10/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	12400		mg/kg	8.36	2.26	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	4.18	0.318	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Arsenic, Total	ND		mg/kg	0.836	0.174	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Barium, Total	187		mg/kg	0.836	0.145	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Beryllium, Total	0.259	J	mg/kg	0.418	0.028	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.836	0.082	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Calcium, Total	1820		mg/kg	8.36	2.92	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Chromium, Total	22.8		mg/kg	0.836	0.080	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Cobalt, Total	19.7		mg/kg	1.67	0.139	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Copper, Total	40.0		mg/kg	0.836	0.216	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Iron, Total	23600		mg/kg	4.18	0.755	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Lead, Total	8.82		mg/kg	4.18	0.224	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Magnesium, Total	6360		mg/kg	8.36	1.29	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Manganese, Total	235		mg/kg	0.836	0.133	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Mercury, Total	0.164		mg/kg	0.067	0.044	1	07/11/19 07:30	07/11/19 12:31	EPA 7471B	1,7471B	GD
Nickel, Total	26.0		mg/kg	2.09	0.202	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Potassium, Total	8270		mg/kg	209	12.0	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Selenium, Total	ND		mg/kg	1.67	0.216	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.836	0.236	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Sodium, Total	177		mg/kg	167	2.63	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.67	0.263	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Vanadium, Total	37.9		mg/kg	0.836	0.170	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
Zinc, Total	74.9		mg/kg	4.18	0.245	2	07/11/19 09:10	07/11/19 18:11	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	22	J	mg/kg	0.85	0.85	1		07/11/19 22:00	NA	107,-	



Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03

Date Collected: 07/10/19 12:15

Client ID: RB24_13-15

Date Received: 07/10/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 66%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	17800		mg/kg	11.5	3.10	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	5.74	0.436	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Arsenic, Total	1.22		mg/kg	1.15	0.239	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Barium, Total	225		mg/kg	1.15	0.200	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Beryllium, Total	0.448	J	mg/kg	0.574	0.038	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Cadmium, Total	ND		mg/kg	1.15	0.112	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Calcium, Total	6830		mg/kg	11.5	4.02	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Chromium, Total	35.6		mg/kg	1.15	0.110	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Cobalt, Total	23.8		mg/kg	2.30	0.190	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Copper, Total	95.3		mg/kg	1.15	0.296	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Iron, Total	32000		mg/kg	5.74	1.04	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Lead, Total	108		mg/kg	5.74	0.308	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Magnesium, Total	9620		mg/kg	11.5	1.77	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Manganese, Total	389		mg/kg	1.15	0.182	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Mercury, Total	0.213		mg/kg	0.096	0.063	1	07/11/19 07:30	07/11/19 12:33	EPA 7471B	1,7471B	GD
Nickel, Total	33.8		mg/kg	2.87	0.278	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Potassium, Total	9430		mg/kg	287	16.5	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Selenium, Total	ND		mg/kg	2.30	0.296	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	1.15	0.325	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Sodium, Total	331		mg/kg	230	3.62	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	2.30	0.362	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Vanadium, Total	52.9		mg/kg	1.15	0.233	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
Zinc, Total	112		mg/kg	5.74	0.336	2	07/11/19 09:10	07/11/19 18:15	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	36		mg/kg	1.2	1.2	1		07/11/19 22:00	NA	107,-	



Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04

Date Collected: 07/10/19 12:45

Client ID: RB26_0-2

Date Received: 07/10/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 91%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	3840		mg/kg	8.50	2.29	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	4.25	0.323	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Arsenic, Total	9.02		mg/kg	0.850	0.177	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Barium, Total	67.8		mg/kg	0.850	0.148	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Beryllium, Total	0.297	J	mg/kg	0.425	0.028	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.850	0.083	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Calcium, Total	12500		mg/kg	8.50	2.97	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Chromium, Total	8.13		mg/kg	0.850	0.082	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Cobalt, Total	5.92		mg/kg	1.70	0.141	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Copper, Total	21.4		mg/kg	0.850	0.219	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Iron, Total	7990		mg/kg	4.25	0.768	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Lead, Total	43.8		mg/kg	4.25	0.228	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Magnesium, Total	1590		mg/kg	8.50	1.31	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Manganese, Total	80.5		mg/kg	0.850	0.135	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Mercury, Total	0.162		mg/kg	0.069	0.045	1	07/11/19 07:30	07/11/19 12:35	EPA 7471B	1,7471B	GD
Nickel, Total	10.9		mg/kg	2.12	0.206	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Potassium, Total	1460		mg/kg	212	12.2	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Selenium, Total	0.586	J	mg/kg	1.70	0.219	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.850	0.240	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Sodium, Total	306		mg/kg	170	2.68	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.70	0.268	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Vanadium, Total	18.1		mg/kg	0.850	0.172	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
Zinc, Total	123		mg/kg	4.25	0.249	2	07/11/19 09:10	07/11/19 18:20	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	8.1		mg/kg	0.88	0.88	1		07/11/19 22:00	NA	107,-	



Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05

Date Collected: 07/10/19 13:00

Client ID: RB26_10-12

Date Received: 07/10/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	11200		mg/kg	8.31	2.24	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Antimony, Total	ND		mg/kg	4.15	0.316	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Arsenic, Total	1.23		mg/kg	0.831	0.173	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Barium, Total	170		mg/kg	0.831	0.144	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Beryllium, Total	0.307	J	mg/kg	0.415	0.027	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.831	0.081	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Calcium, Total	10400		mg/kg	8.31	2.91	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Chromium, Total	22.9		mg/kg	0.831	0.080	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Cobalt, Total	17.5		mg/kg	1.66	0.138	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Copper, Total	71.4		mg/kg	0.831	0.214	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Iron, Total	21700		mg/kg	4.15	0.750	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Lead, Total	22.8		mg/kg	4.15	0.223	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Magnesium, Total	6280		mg/kg	8.31	1.28	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Manganese, Total	275		mg/kg	0.831	0.132	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Mercury, Total	0.216		mg/kg	0.068	0.044	1	07/11/19 07:30	07/11/19 12:40	EPA 7471B	1,7471B	GD
Nickel, Total	21.8		mg/kg	2.08	0.201	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Potassium, Total	6720		mg/kg	208	12.0	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Selenium, Total	ND		mg/kg	1.66	0.214	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.831	0.235	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Sodium, Total	210		mg/kg	166	2.62	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.66	0.262	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Vanadium, Total	34.4		mg/kg	0.831	0.169	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
Zinc, Total	70.6		mg/kg	4.15	0.243	2	07/11/19 09:10	07/11/19 18:24	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	23	J	mg/kg	0.86	0.86	1		07/11/19 22:00	NA	107,-	



Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06

Date Collected: 07/10/19 13:05

Client ID: RB26_14-16

Date Received: 07/10/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 60%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	13000		mg/kg	13.1	3.55	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Antimony, Total	1.26	J	mg/kg	6.57	0.500	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Arsenic, Total	8.48		mg/kg	1.31	0.273	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Barium, Total	29.9		mg/kg	1.31	0.229	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Beryllium, Total	0.684		mg/kg	0.657	0.043	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Cadmium, Total	ND		mg/kg	1.31	0.129	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Calcium, Total	2440		mg/kg	13.1	4.60	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Chromium, Total	27.3		mg/kg	1.31	0.126	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Cobalt, Total	10.2		mg/kg	2.63	0.218	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Copper, Total	13.2		mg/kg	1.31	0.339	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Iron, Total	26700		mg/kg	6.57	1.19	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Lead, Total	10.7		mg/kg	6.57	0.352	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Magnesium, Total	6540		mg/kg	13.1	2.02	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Manganese, Total	341		mg/kg	1.31	0.209	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Mercury, Total	ND		mg/kg	0.105	0.069	1	07/11/19 07:30	07/11/19 12:42	EPA 7471B	1,7471B	GD
Nickel, Total	21.0		mg/kg	3.29	0.318	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Potassium, Total	2860		mg/kg	329	18.9	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Selenium, Total	ND		mg/kg	2.63	0.339	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	1.31	0.372	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Sodium, Total	342		mg/kg	263	4.14	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	2.63	0.414	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Vanadium, Total	35.2		mg/kg	1.31	0.267	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
Zinc, Total	63.0		mg/kg	6.57	0.385	2	07/11/19 09:10	07/11/19 19:23	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	27		mg/kg	1.3	1.3	1		07/11/19 22:00	NA	107,-	



Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07

Date Collected: 07/10/19 13:55

Client ID: RB23_0-2

Date Received: 07/10/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 93%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	5400		mg/kg	8.10	2.19	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Antimony, Total	1.97	J	mg/kg	4.05	0.308	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Arsenic, Total	7.79		mg/kg	0.810	0.168	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Barium, Total	231		mg/kg	0.810	0.141	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Beryllium, Total	0.259	J	mg/kg	0.405	0.027	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.810	0.079	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Calcium, Total	34800		mg/kg	8.10	2.84	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Chromium, Total	11.3		mg/kg	0.810	0.078	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Cobalt, Total	6.74		mg/kg	1.62	0.134	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Copper, Total	952		mg/kg	0.810	0.209	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Iron, Total	15900		mg/kg	4.05	0.732	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Lead, Total	2080		mg/kg	4.05	0.217	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Magnesium, Total	5270		mg/kg	8.10	1.25	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Manganese, Total	253		mg/kg	0.810	0.129	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Mercury, Total	0.088		mg/kg	0.069	0.045	1	07/11/19 07:30	07/11/19 12:44	EPA 7471B	1,7471B	GD
Nickel, Total	20.4		mg/kg	2.03	0.196	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Potassium, Total	2030		mg/kg	203	11.7	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Selenium, Total	ND		mg/kg	1.62	0.209	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Silver, Total	0.348	J	mg/kg	0.810	0.229	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Sodium, Total	257		mg/kg	162	2.55	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.62	0.255	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Vanadium, Total	15.7		mg/kg	0.810	0.164	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
Zinc, Total	425		mg/kg	4.05	0.237	2	07/11/19 09:10	07/11/19 19:28	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	11		mg/kg	0.86	0.86	1		07/11/19 22:00	NA	107,-	



Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08

Date Collected: 07/10/19 14:05

Client ID: RB23_10-12

Date Received: 07/10/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 85%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6290		mg/kg	8.93	2.41	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Antimony, Total	0.554	J	mg/kg	4.46	0.339	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Arsenic, Total	2.30		mg/kg	0.893	0.186	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Barium, Total	26.9		mg/kg	0.893	0.155	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Beryllium, Total	0.259	J	mg/kg	0.446	0.030	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.893	0.088	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Calcium, Total	656		mg/kg	8.93	3.13	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Chromium, Total	8.65		mg/kg	0.893	0.086	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Cobalt, Total	4.81		mg/kg	1.79	0.148	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Copper, Total	7.24		mg/kg	0.893	0.230	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Iron, Total	10900		mg/kg	4.46	0.806	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Lead, Total	10.2		mg/kg	4.46	0.239	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Magnesium, Total	2190		mg/kg	8.93	1.38	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Manganese, Total	253		mg/kg	0.893	0.142	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Mercury, Total	ND		mg/kg	0.074	0.048	1	07/11/19 07:30	07/11/19 12:46	EPA 7471B	1,7471B	GD
Nickel, Total	9.62		mg/kg	2.23	0.216	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Potassium, Total	382		mg/kg	223	12.9	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Selenium, Total	ND		mg/kg	1.79	0.230	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.893	0.253	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Sodium, Total	43.4	J	mg/kg	179	2.81	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.79	0.281	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Vanadium, Total	11.6		mg/kg	0.893	0.181	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
Zinc, Total	27.8		mg/kg	4.46	0.262	2	07/11/19 09:10	07/11/19 19:33	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	8.6		mg/kg	0.94	0.94	1		07/11/19 22:00	NA	107,-	



Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09

Date Collected: 07/10/19 14:10

Client ID: RB23_13-15

Date Received: 07/10/19

Sample Location: BRONX, NY

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	11200		mg/kg	9.24	2.50	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Antimony, Total	0.508	J	mg/kg	4.62	0.351	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Arsenic, Total	5.21		mg/kg	0.924	0.192	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Barium, Total	112		mg/kg	0.924	0.161	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Beryllium, Total	0.277	J	mg/kg	0.462	0.031	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.924	0.091	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Calcium, Total	61400		mg/kg	92.4	32.4	20	07/11/19 09:10	07/11/19 21:41	EPA 3050B	1,6010D	LC
Chromium, Total	20.9		mg/kg	0.924	0.089	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Cobalt, Total	12.7		mg/kg	1.85	0.153	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Copper, Total	41.6		mg/kg	0.924	0.238	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Iron, Total	28200		mg/kg	4.62	0.835	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Lead, Total	62.4		mg/kg	4.62	0.248	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Magnesium, Total	9750		mg/kg	9.24	1.42	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Manganese, Total	332		mg/kg	0.924	0.147	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Mercury, Total	0.057	J	mg/kg	0.079	0.051	1	07/11/19 07:30	07/11/19 12:48	EPA 7471B	1,7471B	GD
Nickel, Total	19.6		mg/kg	2.31	0.224	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Potassium, Total	5570		mg/kg	231	13.3	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Selenium, Total	ND		mg/kg	1.85	0.238	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Silver, Total	ND		mg/kg	0.924	0.262	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Sodium, Total	302		mg/kg	185	2.91	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Thallium, Total	ND		mg/kg	1.85	0.291	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Vanadium, Total	30.8		mg/kg	0.924	0.188	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
Zinc, Total	59.6		mg/kg	4.62	0.271	2	07/11/19 09:10	07/11/19 19:38	EPA 3050B	1,6010D	LC
General Chemistry - Mansfield Lab											
Chromium, Trivalent	21		mg/kg	0.99	0.99	1		07/11/19 22:00	NA	107,-	



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-09 Batch: WG1258441-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	07/11/19 07:30	07/11/19 11:57	1,7471B	GD

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-09 Batch: WG1258446-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Antimony, Total	ND		mg/kg	2.00	0.152	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Arsenic, Total	ND		mg/kg	0.400	0.083	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Barium, Total	ND		mg/kg	0.400	0.070	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Beryllium, Total	ND		mg/kg	0.200	0.013	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Cadmium, Total	ND		mg/kg	0.400	0.039	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Calcium, Total	ND		mg/kg	4.00	1.40	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Chromium, Total	ND		mg/kg	0.400	0.038	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Cobalt, Total	ND		mg/kg	0.800	0.066	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Copper, Total	0.116	J	mg/kg	0.400	0.103	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Iron, Total	0.820	J	mg/kg	2.00	0.361	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Lead, Total	ND		mg/kg	2.00	0.107	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Magnesium, Total	ND		mg/kg	4.00	0.616	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Manganese, Total	0.336	J	mg/kg	0.400	0.064	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Nickel, Total	ND		mg/kg	1.00	0.097	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Potassium, Total	ND		mg/kg	100	5.76	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Selenium, Total	ND		mg/kg	0.800	0.103	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Silver, Total	ND		mg/kg	0.400	0.113	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Sodium, Total	1.28	J	mg/kg	80.0	1.26	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Thallium, Total	ND		mg/kg	0.800	0.126	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Vanadium, Total	ND		mg/kg	0.400	0.081	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC
Zinc, Total	ND		mg/kg	2.00	0.117	1	07/11/19 09:10	07/11/19 11:29	1,6010D	LC



Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-09 Batch: WG1258441-2 SRM Lot Number: D105-540								
Mercury, Total	94		-		60-141	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Project Number: 170487001

Lab Number: L1930096

Report Date: 07/29/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-09 Batch: WG1258446-2 SRM Lot Number: D105-540					
Aluminum, Total	54	-	51-149	-	
Antimony, Total	140	-	19-249	-	
Arsenic, Total	92	-	70-130	-	
Barium, Total	81	-	75-125	-	
Beryllium, Total	85	-	75-125	-	
Cadmium, Total	96	-	75-125	-	
Calcium, Total	74	-	73-127	-	
Chromium, Total	78	-	70-130	-	
Cobalt, Total	89	-	75-125	-	
Copper, Total	82	-	75-125	-	
Iron, Total	66	-	38-162	-	
Lead, Total	83	-	71-128	-	
Magnesium, Total	67	-	63-137	-	
Manganese, Total	80	-	76-124	-	
Nickel, Total	90	-	70-131	-	
Potassium, Total	69	-	60-140	-	
Selenium, Total	89	-	63-137	-	
Silver, Total	82	-	69-131	-	
Sodium, Total	87	-	37-162	-	
Thallium, Total	93	-	68-132	-	
Vanadium, Total	79	-	65-135	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-09 Batch: WG1258446-2 SRM Lot Number: D105-540					
Zinc, Total	84	-	70-130	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG1258441-3 WG1258441-4 QC Sample: L1930158-01 Client ID: MS Sample									
Mercury, Total	ND	0.154	0.124	80	0.125	82	80-120	1	20

Matrix Spike Analysis Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits			
Total Metals - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG1258446-3 WG1258446-4 QC Sample: L1930158-01 Client ID: MS Sample												
Aluminum, Total	2950	190	2100	0	Q	2950	0	Q	75-125	34	Q	20
Antimony, Total	0.467J	47.6	42.9	90		43.4	91		75-125	1		20
Arsenic, Total	0.572J	11.4	11.7	102		11.4	99		75-125	3		20
Barium, Total	15.8	190	175	84		174	82		75-125	1		20
Beryllium, Total	0.295J	4.76	4.29	90		4.22	88		75-125	2		20
Cadmium, Total	ND	4.85	4.15	85		4.13	84		75-125	0		20
Calcium, Total	253	952	1090	88		1120	90		75-125	3		20
Chromium, Total	17.6	19	28.4	57	Q	32.0	75		75-125	12		20
Cobalt, Total	8.49	47.6	47.8	82		50.2	87		75-125	5		20
Copper, Total	9.25	23.8	26.6	73	Q	28.4	80		75-125	7		20
Iron, Total	12300	95.2	9190	0	Q	10900	0	Q	75-125	17		20
Lead, Total	1.58J	48.5	44.5	92		44.9	92		75-125	1		20
Magnesium, Total	719	952	1200	50	Q	1480	79		75-125	21	Q	20
Manganese, Total	122	47.6	111	0	Q	140	38	Q	75-125	23	Q	20
Nickel, Total	6.25	47.6	46.7	85		49.0	89		75-125	5		20
Potassium, Total	613	952	1140	55	Q	1390	81		75-125	20		20
Selenium, Total	ND	11.4	10.5	92		10.3	90		75-125	2		20
Silver, Total	ND	28.6	25.5	89		24.6	86		75-125	4		20
Sodium, Total	57.0J	952	846	89		816	85		75-125	4		20
Thallium, Total	ND	11.4	9.76	85		9.70	84		75-125	1		20
Vanadium, Total	19.9	47.6	57.0	78		58.9	81		75-125	3		20

Matrix Spike Analysis
Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-09 QC Batch ID: WG1258446-3 WG1258446-4 QC Sample: L1930158-01 Client ID: MS Sample									
Zinc, Total	13.0	47.6	52.2	82	57.0	92	75-125	9	20

INORGANICS & MISCELLANEOUS

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-01
Client ID: RB24_0-2
Sample Location: BRONX, NY

Date Collected: 07/10/19 11:45
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.7		%	0.100	NA	1	-	07/11/19 05:23	121,2540G	YA
Cyanide, Total	ND		mg/kg	1.1	0.23	1	07/11/19 09:55	07/11/19 14:13	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.892	0.178	1	07/11/19 11:00	07/11/19 22:00	1,7196A	NH



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-02
Client ID: RB24_8-10
Sample Location: BRONX, NY

Date Collected: 07/10/19 11:55
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.9		%	0.100	NA	1	-	07/11/19 05:23	121,2540G	YA
Cyanide, Total	ND		mg/kg	0.98	0.21	1	07/11/19 09:55	07/11/19 14:49	1,9010C/9012B	LH
Chromium, Hexavalent	0.245	J	mg/kg	0.852	0.170	1	07/11/19 11:00	07/11/19 22:00	1,7196A	NH



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-03
Client ID: RB24_13-15
Sample Location: BRONX, NY

Date Collected: 07/10/19 12:15
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	65.5		%	0.100	NA	1	-	07/11/19 05:23	121,2540G	YA
Cyanide, Total	ND		mg/kg	1.5	0.31	1	07/11/19 09:55	07/11/19 14:56	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	1.22	0.244	1	07/11/19 11:00	07/11/19 22:00	1,7196A	NH



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-04
Client ID: RB26_0-2
Sample Location: BRONX, NY

Date Collected: 07/10/19 12:45
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	91.2		%	0.100	NA	1	-	07/11/19 05:23	121,2540G	YA
Cyanide, Total	ND		mg/kg	1.1	0.23	1	07/11/19 09:55	07/11/19 14:18	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.877	0.175	1	07/11/19 11:00	07/11/19 22:00	1,7196A	NH



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-05
Client ID: RB26_10-12
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:00
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	93.3		%	0.100	NA	1	-	07/11/19 05:23	121,2540G	YA
Cyanide, Total	ND		mg/kg	1.0	0.22	1	07/11/19 09:55	07/11/19 14:19	1,9010C/9012B	LH
Chromium, Hexavalent	0.182	J	mg/kg	0.857	0.171	1	07/11/19 11:00	07/11/19 22:00	1,7196A	NH



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-06
Client ID: RB26_14-16
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:05
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	59.7		%	0.100	NA	1	-	07/11/19 05:23	121,2540G	YA
Cyanide, Total	ND		mg/kg	1.6	0.33	1	07/11/19 09:55	07/11/19 14:20	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	1.34	0.268	1	07/11/19 11:00	07/11/19 22:00	1,7196A	NH



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-07
Client ID: RB23_0-2
Sample Location: BRONX, NY

Date Collected: 07/10/19 13:55
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	92.7		%	0.100	NA	1	-	07/11/19 05:23	121,2540G	YA
Cyanide, Total	ND		mg/kg	1.0	0.21	1	07/11/19 09:55	07/11/19 14:21	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.863	0.172	1	07/11/19 11:00	07/11/19 22:00	1,7196A	NH



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-08
Client ID: RB23_10-12
Sample Location: BRONX, NY

Date Collected: 07/10/19 14:05
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.4		%	0.100	NA	1	-	07/11/19 05:23	121,2540G	YA
Cyanide, Total	ND		mg/kg	1.1	0.23	1	07/11/19 09:55	07/11/19 14:22	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.937	0.187	1	07/11/19 11:00	07/11/19 22:00	1,7196A	NH



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

SAMPLE RESULTS

Lab ID: L1930096-09
Client ID: RB23_13-15
Sample Location: BRONX, NY

Date Collected: 07/10/19 14:10
Date Received: 07/10/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	81.1		%	0.100	NA	1	-	07/11/19 05:23	121,2540G	YA
Cyanide, Total	ND		mg/kg	1.2	0.26	1	07/11/19 09:55	07/11/19 14:41	1,9010C/9012B	LH
Chromium, Hexavalent	ND		mg/kg	0.986	0.197	1	07/11/19 11:00	07/11/19 22:00	1,7196A	NH



Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Method Blank Analysis
Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-09 Batch: WG1258510-1									
Cyanide, Total	ND	mg/kg	0.89	0.19	1	07/11/19 09:55	07/11/19 14:03	1,9010C/9012B	LH
General Chemistry - Westborough Lab for sample(s): 01-09 Batch: WG1258598-1									
Chromium, Hexavalent	ND	mg/kg	0.800	0.160	1	07/11/19 11:00	07/11/19 22:00	1,7196A	NH

Lab Control Sample Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Project Number: 170487001

Lab Number: L1930096

Report Date: 07/29/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-09 Batch: WG1258510-2 WG1258510-3								
Cyanide, Total	69	Q	83		80-120	17		35
General Chemistry - Westborough Lab Associated sample(s): 01-09 Batch: WG1258598-2								
Chromium, Hexavalent	88		-		80-120	-		20

Matrix Spike Analysis Batch Quality Control

Project Name: 404 EXTERIOR STREET

Lab Number: L1930096

Project Number: 170487001

Report Date: 07/29/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1258510-4 WG1258510-5 QC Sample: L1930096-01 Client ID: RB24_0-2												
Cyanide, Total	ND	10	10	94		10	94		75-125	0		35
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1258598-4 QC Sample: L1930096-07 Client ID: RB23_0-2												
Chromium, Hexavalent	ND	1040	971	94		-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 404 EXTERIOR STREET

Project Number: 170487001

Lab Number: L1930096

Report Date: 07/29/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1258410-1 QC Sample: L1930158-01 Client ID: DUP Sample						
Solids, Total	82.4	81.5	%	1		20
General Chemistry - Westborough Lab Associated sample(s): 01-09 QC Batch ID: WG1258598-6 QC Sample: L1930096-07 Client ID: RB23_0-2						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Serial_No:07291917:02
Lab Number: L1930096
Report Date: 07/29/19

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1930096-01A	Vial MeOH preserved	A	NA		5.4	Y	Absent		NYTCL-8260HLW(14)
L1930096-01B	Vial water preserved	A	NA		5.4	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-01C	Vial water preserved	A	NA		5.4	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-01D	Plastic 2oz unpreserved for TS	A	NA		5.4	Y	Absent		TS(7)
L1930096-01E	Plastic 2oz unpreserved for TS	A	NA		5.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1930096-01F	Glass 60mL/2oz unpreserved	A	NA		5.4	Y	Absent		HOLD-CONTINGENCY(14)
L1930096-01G	Glass 120ml/4oz unpreserved	A	NA		5.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-01H	Plastic 8oz unpreserved	A	NA		5.4	Y	Absent		A2-NY-537-ISOTOPE(28)
L1930096-01I	Glass 500ml/16oz unpreserved	A	NA		5.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-02A	Vial MeOH preserved	B	NA		4.6	Y	Absent		NYTCL-8260HLW(14)
L1930096-02B	Vial water preserved	B	NA		4.6	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-02C	Vial water preserved	B	NA		4.6	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-02D	Plastic 2oz unpreserved for TS	B	NA		4.6	Y	Absent		TS(7)
L1930096-02E	Plastic 2oz unpreserved for TS	B	NA		4.6	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1930096-02F	Glass 60mL/2oz unpreserved	B	NA		4.6	Y	Absent		HOLD-CONTINGENCY(14)

*Values in parentheses indicate holding time in days



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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1930096-02G	Glass 120ml/4oz unpreserved	B	NA		4.6	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-02H	Plastic 8oz unpreserved	B	NA		4.6	Y	Absent		A2-NY-537-ISOTOPE(28)
L1930096-02I	Glass 500ml/16oz unpreserved	B	NA		4.6	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-03A	Vial MeOH preserved	B	NA		4.6	Y	Absent		NYTCL-8260HLW(14)
L1930096-03B	Vial water preserved	B	NA		4.6	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-03C	Vial water preserved	B	NA		4.6	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-03D	Plastic 2oz unpreserved for TS	B	NA		4.6	Y	Absent		TS(7)
L1930096-03E	Plastic 2oz unpreserved for TS	B	NA		4.6	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1930096-03F	Glass 60mL/2oz unpreserved	B	NA		4.6	Y	Absent		HOLD-CONTINGENCY(14)
L1930096-03G	Glass 120ml/4oz unpreserved	B	NA		4.6	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-03H	Plastic 8oz unpreserved	B	NA		4.6	Y	Absent		A2-NY-537-ISOTOPE(28)
L1930096-03I	Glass 500ml/16oz unpreserved	B	NA		4.6	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-04A	Vial MeOH preserved	A	NA		5.4	Y	Absent		NYTCL-8260HLW(14)
L1930096-04B	Vial water preserved	A	NA		5.4	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-04C	Vial water preserved	A	NA		5.4	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-04D	Plastic 2oz unpreserved for TS	A	NA		5.4	Y	Absent		TS(7)
L1930096-04E	Plastic 2oz unpreserved for TS	A	NA		5.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1930096-04F	Glass 60mL/2oz unpreserved	A	NA		5.4	Y	Absent		HOLD-CONTINGENCY(14)
L1930096-04G	Glass 120ml/4oz unpreserved	A	NA		5.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

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L1930096-04H	Plastic 8oz unpreserved	A	NA		5.4	Y	Absent		A2-NY-537-ISOTOPE(28)
L1930096-04I	Glass 500ml/16oz unpreserved	A	NA		5.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-05A	Vial MeOH preserved	A	NA		5.4	Y	Absent		NYTCL-8260HLW(14)
L1930096-05B	Vial water preserved	A	NA		5.4	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-05C	Vial water preserved	A	NA		5.4	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-05D	Plastic 2oz unpreserved for TS	A	NA		5.4	Y	Absent		TS(7)
L1930096-05E	Plastic 2oz unpreserved for TS	A	NA		5.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1930096-05F	Glass 60mL/2oz unpreserved	A	NA		5.4	Y	Absent		HOLD-CONTINGENCY(14)
L1930096-05G	Glass 120ml/4oz unpreserved	A	NA		5.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-05H	Plastic 8oz unpreserved	A	NA		5.4	Y	Absent		A2-NY-537-ISOTOPE(28)
L1930096-05I	Glass 500ml/16oz unpreserved	A	NA		5.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-06A	Vial MeOH preserved	A	NA		5.4	Y	Absent		NYTCL-8260HLW(14)
L1930096-06B	Vial water preserved	A	NA		5.4	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-06C	Vial water preserved	A	NA		5.4	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-06D	Plastic 2oz unpreserved for TS	A	NA		5.4	Y	Absent		TS(7)
L1930096-06E	Plastic 2oz unpreserved for TS	A	NA		5.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1930096-06F	Glass 60mL/2oz unpreserved	A	NA		5.4	Y	Absent		HOLD-CONTINGENCY(14)
L1930096-06G	Glass 120ml/4oz unpreserved	A	NA		5.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-06H	Plastic 8oz unpreserved	A	NA		5.4	Y	Absent		A2-NY-537-ISOTOPE(28)

*Values in parentheses indicate holding time in days



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Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1930096-06I	Glass 500ml/16oz unpreserved	A	NA		5.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-07A	Vial MeOH preserved	A	NA		5.4	Y	Absent		NYTCL-8260HLW(14)
L1930096-07B	Vial water preserved	A	NA		5.4	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-07C	Vial water preserved	A	NA		5.4	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-07D	Plastic 2oz unpreserved for TS	A	NA		5.4	Y	Absent		TS(7)
L1930096-07E	Plastic 2oz unpreserved for TS	A	NA		5.4	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1930096-07F	Glass 60mL/2oz unpreserved	A	NA		5.4	Y	Absent		HOLD-CONTINGENCY(14)
L1930096-07G	Glass 120ml/4oz unpreserved	A	NA		5.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-07H	Plastic 8oz unpreserved	A	NA		5.4	Y	Absent		A2-NY-537-ISOTOPE(28)
L1930096-07I	Glass 500ml/16oz unpreserved	A	NA		5.4	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-08A	Vial MeOH preserved	B	NA		4.6	Y	Absent		NYTCL-8260HLW(14)
L1930096-08B	Vial water preserved	B	NA		4.6	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-08C	Vial water preserved	B	NA		4.6	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-08D	Plastic 2oz unpreserved for TS	B	NA		4.6	Y	Absent		TS(7)
L1930096-08E	Plastic 2oz unpreserved for TS	B	NA		4.6	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1930096-08F	Glass 60mL/2oz unpreserved	B	NA		4.6	Y	Absent		HOLD-CONTINGENCY(14)
L1930096-08G	Glass 120ml/4oz unpreserved	B	NA		4.6	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-08H	Plastic 8oz unpreserved	B	NA		4.6	Y	Absent		A2-NY-537-ISOTOPE(28)
L1930096-08I	Glass 500ml/16oz unpreserved	B	NA		4.6	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)

*Values in parentheses indicate holding time in days



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Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1930096-09A	Vial MeOH preserved	B	NA		4.6	Y	Absent		NYTCL-8260HLW(14)
L1930096-09B	Vial water preserved	B	NA		4.6	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-09C	Vial water preserved	B	NA		4.6	Y	Absent	11-JUL-19 03:57	NYTCL-8260HLW(14)
L1930096-09D	Plastic 2oz unpreserved for TS	B	NA		4.6	Y	Absent		TS(7)
L1930096-09E	Plastic 2oz unpreserved for TS	B	NA		4.6	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1930096-09F	Glass 60mL/2oz unpreserved	B	NA		4.6	Y	Absent		HOLD-CONTINGENCY(14)
L1930096-09G	Glass 120ml/4oz unpreserved	B	NA		4.6	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-09H	Plastic 8oz unpreserved	B	NA		4.6	Y	Absent		A2-NY-537-ISOTOPE(28)
L1930096-09I	Glass 500ml/16oz unpreserved	B	NA		4.6	Y	Absent		NYTCL-8270(14),TCN-9010(14),HERB-APA(14),NYTCL-8081(14),NYTCL-8082(14),HEXCR-7196(30)
L1930096-10A	Plastic 250ml unpreserved	B	NA		4.6	Y	Absent		A2-NY-537-ISOTOPE(14)
L1930096-11A	Vial HCl preserved	B	NA		4.6	Y	Absent		NYTCL-8260(14)
L1930096-11B	Vial HCl preserved	B	NA		4.6	Y	Absent		NYTCL-8260(14)

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GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



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- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: 404 EXTERIOR STREET
Project Number: 170487001

Lab Number: L1930096
Report Date: 07/29/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 107 Alpha Analytical - In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 122 Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS). EPA Method 537, EPA/600/R-08/092. Version 1.1, September 2009.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at its own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water


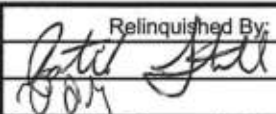
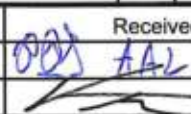



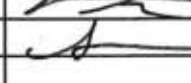
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

 NEW YORK CHAIN OF CUSTODY	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 1 of 2	Date Rec'd in Lab 7/11/19	ALPHA Job # L1930096											
		Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3268	Deliverables <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other	Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #										
Project Information Project Name: 404 EXTERIOR STREET Project Location: BRONX, NY Project # 170487001		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:											
Client Information Client: LANGAN ENG Address: 360 W 81st ST NEW YORK, NY Phone: 212 479 5400 Fax: Email: jleung@langan.com		(Use Project name as Project #) <input type="checkbox"/> Project Manager: JULIA LEUNG ALPHAQuote #: Turn-Around Time Standard <input type="checkbox"/> Due Date: 7/12/19 Rush (only if pre approved) <input checked="" type="checkbox"/> # of Days:		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)											
These samples have been previously analyzed by Alpha <input type="checkbox"/>		ANALYSIS		Total Boiler Time											
Other project specific requirements/comments: 48-hr TAT Send reports to data.management@langan.com		Please specify Metals or TAL.													
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection		Sample Matrix	Sampler's Initials	PFAS	1,4 Dioxane	VOCs	SVOCs	PCBs	Pesticides/Herbicides	TAL Metals	Hex/Tri Chloro	Total CN	Sample Specific Comments
		Date	Time												
30096 - 01	RB24-0-2	7/10/19	1145	S	PS	X	X	X	X	X	X	X	X	X	
-02	RB24-8-10		1155												
03	RB24-13-15		1215												
04	RB26-0-2		1245												
05	RB26-10-12		1300												
06	RB26-14-16		1305												
07	RB23-0-2		1355												
08	RB23-10-12		1405												
09	RB23-13-15		1410												
10	SOFBOS-071019		1455												
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code: P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type P P W A A A A A		Preservative A A O A A A A A		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)					
		Relinquished By: 		Date/Time 7/10/19 1525		Received By: 		Date/Time 7-10-19 1525							
				7-10-19 1708				7/10/19 2000							
				7/11/19 0110				7/11/19 0110							

 Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193	NEW YORK CHAIN OF CUSTODY Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288	Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105	Page 2 of 2	Date Rec'd in Lab 7/11/19	ALPHA Job # L1930096					
		Project Information Project Name: 404 EXTERIOR STREET Project Location: BRONX, NY Project # 70487001 (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input checked="" type="checkbox"/> ASP-B <input type="checkbox"/> EQUS (1 File) <input type="checkbox"/> EQUS (4 File) <input type="checkbox"/> Other		Billing Information <input type="checkbox"/> Same as Client Info PO #				
Client Information Client: LANGAN ENG Address: 300 W 31st STREET NEW YORK, NY Phone: 212 474 5400 Fax: Email: jleung@lanyan.com		Project Manager: JULIA LEUNG ALPHAQuote #:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:				
Turn-Around Time Standard <input type="checkbox"/> Due Date: Rush (only if pre approved) <input checked="" type="checkbox"/> # of Days:		These samples have been previously analyzed by Alpha <input type="checkbox"/>		ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below) Sample Specific Comments				
Other project specific requirements/comments: <div style="text-align: center; font-size: 1.5em;">48-hr TAT</div>		Please specify Metals or TAL.		Vials		T o t a l B o t t l e				
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection					Sample Matrix	Sampler's Initials	Date	Time
30096-11	SOTBOG-071019	7/10/19					AQ	PS		

Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other	Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle	Westboro: Certification No: MA935 Mansfield: Certification No: MA015	Container Type <input checked="" type="checkbox"/>	Preservative D	Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)
Relinquished By: <i>[Signature]</i>		Date/Time: 7/10/19 1525	Received By: <i>[Signature]</i> AAV		Date/Time: 7-10-19 1525
Relinquished By: <i>[Signature]</i>		Date/Time: 7-10-19 1708	Received By: <i>[Signature]</i> AAV		Date/Time: 7/10/19 2000
Relinquished By: <i>[Signature]</i>		Date/Time: 7/11/19 0110	Received By: <i>[Signature]</i>		Date/Time: 7/11/19 0110

APPENDIX H

COMPLETED FISH AND WILDLIFE RESOURCES IMPACT ANALYSIS DECISION KEY AND MEMO

Appendix 3C Fish and Wildlife Resources Impact Analysis Decision Key		If YES Go to:	If NO Go to:
1.	Is the site or area of concern a discharge or spill event?	13	2
2.	Is the site or area of concern a point source of contamination to the groundwater which will be prevented from discharging to surface water? Soil contamination is not widespread, or if widespread, is confined under buildings and paved areas.	13	3
3.	Is the site and all adjacent property a developed area with buildings, paved surfaces and little or no vegetation?	4	9
4.	Does the site contain habitat of an endangered, threatened or special concern species?	Section 3.10.1	5
5.	Has the contamination gone off-site?	6	14
6.	Is there any discharge or erosion of contamination to surface water or the potential for discharge or erosion of contamination?	7	14
7.	Are the site contaminants PCBs, pesticides or other persistent, bioaccumulable substances?	Section 3.10.1	8
8.	Does contamination exist at concentrations that could exceed ecological impact SCGs or be toxic to aquatic life if discharged to surface water?	Section 3.10.1	14
9.	Does the site or any adjacent or downgradient property contain any of the following resources? i. Any endangered, threatened or special concern species or rare plants or their habitat ii. Any DEC designated significant habitats or rare NYS Ecological Communities iii. Tidal or freshwater wetlands iv. Stream, creek or river v. Pond, lake, lagoon vi. Drainage ditch or channel vii. Other surface water feature viii. Other marine or freshwater habitat ix. Forest x. Grassland or grassy field xi. Parkland or woodland xii. Shrubby area xiii. Urban wildlife habitat xiv. Other terrestrial habitat	11	10
10.	Is the lack of resources due to the contamination?	3.10.1	14
11.	Is the contamination a localized source which has not migrated and will not migrate from the source to impact any on-site or off-site resources?	14	12
12.	Does the site have widespread surface soil contamination that is not confined under and around buildings or paved areas?	Section 3.10.1	12
13.	Does the contamination at the site or area of concern have the potential to migrate to, erode into or otherwise impact any on-site or off-site habitat of endangered, threatened or special concern species or other fish and wildlife resource? (See #9 for list of potential resources. Contact DEC for information regarding endangered species.)	Section 3.10.1	14
14.	No Fish and Wildlife Resources Impact Analysis needed.		

APPENDIX C

CITIZEN PARTICIPATION PLAN



**Department of
Environmental
Conservation**

Brownfield Cleanup Program
Citizen Participation Plan
for
Gerard Avenue and East 146th Street Site
C203111

September 2018

417 & 445 Gerard Avenue and 440 Major Wm Deegan Boulevard.
Bronx, NY 10451

Contents

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1. What is New York's Brownfield Cleanup Program?	3
2. Citizen Participation Activities.....	3
3. Major Issues of Public Concern.....	9
4. Site Information.....	9
5. Investigation and Cleanup Process	10
Appendix A - Project Contacts and Locations of Reports and Information	14
Appendix B - Site Contact List.....	18
Appendix C - Site Location Map.....	20
Appendix D - Brownfield Cleanup Program Process	21

* * * * *

Note: The information presented in this Citizen Participation Plan was current as of the date of its approval by the New York State Department of Environmental Conservation. Portions of this Citizen Participation Plan may be revised during the site's investigation and cleanup process.

Applicant: **417 Gerard Avenue Holdings LLC (“Applicant”)**
Site Name: **Gerard Avenue and East 146th Street Site (“site”)**
Site Address: **417 & 445 Gerard Avenue and 440 Major Wm Deegan Boulevard,
Bronx, NY 10451**
Site County: **Bronx County**
Site Number: **C203111**

1. What is New York’s Brownfield Cleanup Program?

New York’s Brownfield Cleanup Program (BCP) works with private developers to encourage the voluntary cleanup of contaminated properties known as “brownfields” so that they can be reused and developed. These uses include recreation, housing, and business.

A *brownfield* is any real property that is difficult to reuse or redevelop because of the presence or potential presence of contamination. A brownfield typically is a former industrial or commercial property where operations may have resulted in environmental contamination. A brownfield can pose environmental, legal, and financial burdens on a community. If a brownfield is not addressed, it can reduce property values in the area and affect economic development of nearby properties.

The BCP is administered by the New York State Department of Environmental Conservation (NYSDEC) which oversees Applicants who conduct brownfield site investigation and cleanup activities. An Applicant is a person who has requested to participate in the BCP and has been accepted by NYSDEC. The BCP contains investigation and cleanup requirements, ensuring that cleanups protect public health and the environment. When NYSDEC certifies that these requirements have been met, the property can be reused or redeveloped for the intended use.

For more information about the BCP, go online at:
<http://www.dec.ny.gov/chemical/8450.html> .

2. Citizen Participation Activities

Why NYSDEC Involves the Public and Why It Is Important

NYSDEC involves the public to improve the process of investigating and cleaning up contaminated sites, and to enable citizens to participate more fully in decisions that affect their health, environment, and social well-being. NYSDEC provides opportunities for citizen involvement and encourages early two-way communication with citizens before decision-makers form or adopt final positions.

Involving citizens affected and interested in site investigation and cleanup programs is important for many reasons. These include:

- Promoting the development of timely, effective site investigation and cleanup programs that protect public health and the environment
- Improving public access to, and understanding of, issues and information related to a particular site and that site's investigation and cleanup process
- Providing citizens with early and continuing opportunities to participate in NYSDEC's site investigation and cleanup process
- Ensuring that NYSDEC makes site investigation and cleanup decisions that benefit from input that reflects the interests and perspectives found within the affected community
- Encouraging dialogue to promote the exchange of information among the affected/interested public, State agencies, and other interested parties that strengthens trust among the parties, increases understanding of site and community issues and concerns, and improves decision-making.

This Citizen Participation (CP) Plan provides information about how NYSDEC will inform and involve the public during the investigation and cleanup of the site identified above. The public information and involvement program will be carried out with assistance, as appropriate, from the Applicant.

Project Contacts

Appendix A identifies NYSDEC project contact(s) to whom the public should address questions or request information about the site's investigation and cleanup program. The public's suggestions about this CP Plan and the CP program for the Site are always welcome. Interested people are encouraged to share their ideas and suggestions with the project contacts at any time.

Locations of Reports and Information

The locations of the reports and information related to the site's investigation and cleanup program also are identified in Appendix A. These locations provide convenient access to important project documents for public review and comment. Some documents may be placed on the NYSDEC web-site. If this occurs, NYSDEC will inform the public in fact sheets distributed about the site and by other means, as appropriate.

Site Contact List

Appendix B contains the site contact list. This list has been developed to keep the community informed about, and involved in, the site's investigation and cleanup process. The site contact list will be used periodically to distribute fact sheets that provide updates about the status of the project. These will include notifications of upcoming activities at the site (such as fieldwork), as well as availability of project documents and announcements about public comment periods.

The site contact list includes, at a minimum:

- Chief executive officer and planning board chairperson of each county, city, town and village in which the site is located;
- Residents, owners, and occupants of the site and properties adjacent to the site;
- The public water supplier which services the area in which the site is located;
- Any person who has requested to be placed on the site contact list;
- The administrator of any school or day care facility located on or near the site for purposes of posting and/or dissemination of information at the facility;
- Location(s) of reports and information.

The site contact list will be reviewed periodically and updated as appropriate. Individuals and organizations will be added to the site contact list upon request. Such requests should be submitted to the NYSDEC project contact(s) identified in Appendix A. Other additions to the site contact list may be made at the discretion of the NYSDEC project manager, in consultation with other NYSDEC staff as appropriate.

Note: The first site fact sheet (usually related to the draft Remedial Investigation Work Plan) is distributed both by paper mailing through the postal service and through DEC Delivers, its email listserv service. The fact sheet includes instructions for signing up with the appropriate county listserv to receive future notifications about the site. See <http://www.dec.ny.gov/chemical/61092.html> .

Subsequent fact sheets about the site will be distributed exclusively through the listserv, except for households without internet access that have indicated the need to continue to receive site information in paper form. Please advise the NYSDEC site project manager identified in Appendix A if that is the case. Paper mailings may continue during the investigation and cleanup process for some sites, based on public interest and need.

CP Activities

The table at the end of this section identifies the CP activities, at a minimum, that have been and will be conducted during the site's investigation and cleanup program. The flowchart in Appendix D shows how these CP activities integrate with the site

investigation and cleanup process. The public is informed about these CP activities through fact sheets and notices distributed at significant points during the program. Elements of the investigation and cleanup process that match up with the CP activities are explained briefly in Section 5.

- **Notices and fact sheets** help the interested and affected public to understand contamination issues related to a site, and the nature and progress of efforts to investigate and clean up a site. Notices and Fact Sheets can be provided in both English and another language.
- **Public forums, comment periods and contact with project managers** provide opportunities for the public to contribute information, opinions and perspectives that have potential to influence decisions about a site's investigation and cleanup.

The public is encouraged to contact project staff at any time during the site's investigation and cleanup process with questions, comments, or requests for information.

This CP Plan may be revised due to changes in major issues of public concern identified in Section 3 or in the nature and scope of investigation and cleanup activities. Modifications may include additions to the site contact list and changes in planned citizen participation activities.

Technical Assistance Grant

NYSDEC must determine if the site poses a significant threat to public health or the environment. This determination generally is made using information developed during the investigation of the site, as described in Section 5.

If the site is determined to be a significant threat, a qualifying community group may apply for a Technical Assistance Grant (TAG). The purpose of a TAG is to provide funds to the qualifying group to obtain independent technical assistance. This assistance helps the TAG recipient to interpret and understand existing environmental information about the nature and extent of contamination related to the site and the development/implementation of a remedy.

An eligible community group must certify that its membership represents the interests of the community affected by the site, and that its members' health, economic well-being or enjoyment of the environment may be affected by a release or threatened release of contamination at the site.

As of the date the declaration (page 2) was signed by the NYSDEC project manager, the significant threat determination for the site had not yet been made.

To verify the significant threat status of the site, the interested public may contact the NYSDEC project manager identified in Appendix A.

For more information about TAGs, go online at <http://www.dec.ny.gov/regulations/2590.html>

Note: The table identifying the citizen participation activities related to the site's investigation and cleanup program follows on the next page:

Citizen Participation Activities	Timing of CP Activity(ies)
Application Process:	
<ul style="list-style-type: none"> • Prepare site contact list • Establish document repository(ies) 	At time of preparation of application to participate in the BCP.
<ul style="list-style-type: none"> • Publish notice in Environmental Notice Bulletin (ENB) announcing receipt of application and 30-day public comment period • Publish above ENB content in local newspaper • Mail above ENB content to site contact list • Conduct 30-day public comment period 	When NYSDEC determines that BCP application is complete. The 30-day public comment period begins on date of publication of notice in ENB. End date of public comment period is as stated in ENB notice. Therefore, ENB notice, newspaper notice, and notice to the site contact list should be provided to the public at the same time.
After Execution of Brownfield Site Cleanup Agreement (BCA):	
<ul style="list-style-type: none"> • Prepare Citizen Participation (CP) Plan 	Before start of Remedial Investigation Note: Applicant must submit CP Plan to NYSDEC for review and approval within 20 days of the effective date of the BCA.
Before NYSDEC Approves Remedial Investigation (RI) Work Plan:	
<ul style="list-style-type: none"> • Distribute fact sheet to site contact list about proposed RI activities and announcing 30-day public comment period about draft RI Work Plan • Conduct 30-day public comment period 	Before NYSDEC approves RI Work Plan. If RI Work Plan is submitted with application, public comment periods will be combined and public notice will include fact sheet. Thirty-day public comment period begins/ends as per dates identified in fact sheet.
After Applicant Completes Remedial Investigation:	
<ul style="list-style-type: none"> • Distribute fact sheet to site contact list that describes RI results 	Before NYSDEC approves RI Report
Before NYSDEC Approves Remedial Work Plan (RWP):	
<ul style="list-style-type: none"> • Distribute fact sheet to site contact list about draft RWP and announcing 45-day public comment period • Public meeting by NYSDEC about proposed RWP (if requested by affected community or at discretion of NYSDEC project manager) • Conduct 45-day public comment period 	Before NYSDEC approves RWP. Forty-five day public comment period begins/ends as per dates identified in fact sheet. Public meeting would be held within the 45-day public comment period.
Before Applicant Starts Cleanup Action:	
<ul style="list-style-type: none"> • Distribute fact sheet to site contact list that describes upcoming cleanup action 	Before the start of cleanup action.
After Applicant Completes Cleanup Action:	
<ul style="list-style-type: none"> • Distribute fact sheet to site contact list that announces that cleanup action has been completed and that NYSDEC is reviewing the Final Engineering Report • Distribute fact sheet to site contact list announcing NYSDEC approval of Final Engineering Report and issuance of Certificate of Completion (COC) 	At the time the cleanup action has been completed. Note: The two fact sheets are combined when possible if there is not a delay in issuing the COC.

3. Major Issues of Public Concern

This section of the CP Plan identifies major issues of public concern that relate to the site. Additional major issues of public concern may be identified during the course of the site's investigation and cleanup process.

At this time, there are no known issues of public concern; however, if subsurface remediation is required, major issues of community concern may be noise, odor, dust and/or truck traffic associated with building demolition and removal of contaminated soil. However, these impacts will be mitigated through implementation of a Health and Safety Plan approved by the Department, which will be designed to minimize these impacts. A Community Air Monitoring Plan will also be implemented to monitor dust and vapors to minimize off-site impacts to the community.

Additional major issues of public concern may be identified during the course of the Site's cleanup process. If issues are identified, the public will be kept informed. Some impacts may be due to air, noise and truck-related traffic.

The Site is not located in an Environmental Justice Area. Therefore, there is no need to translate future fact sheets into another language. Environmental justice is defined as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

Environmental justice efforts focus on improving the environment in communities, specifically minority and low-income communities, and addressing disproportionate adverse environmental impacts that may exist in those communities.

4. Site Information

Appendix C contains a map identifying the location of the site.

Site Description

- **location – 415 & 445 Gerard Avenue and 440 Major Wm Deegan Boulevard, Bronx, NY (Lots 3, 12, and 20 on Bronx Borough Tax Block 2351)**
- **setting - urban**
- **site size – 0.72 Acres**
- **adjacent properties - Mix of residential, commercial, industrial and cultural use throughout the area.**

History of Site Use, Investigation, and Cleanup

The site has been occupied by commercial and industrial facilities since the early 1900s. Lot 3 was used as a parking garage (1935 to 1977); Lot 12 as taxi dispatch center (1930s to 1960s), auto repair shop (1960s to 1980s), and unspecified manufacturing (1990s to 2012); and Lot 20 as public garage (1935 to 1951), fire door manufacturer (1970s), Con Edison garage (1977 to 1993), and mirror fabrication (1993 to 2015).

Three gasoline Underground Storage Tanks (USTs) of unknown size associated with Lot 12 between the years 1935 and 1980 are known to be present and abandoned in place. Two 550-gallon gasoline USTs and three Aboveground Storage Tanks (ASTs) located in a partial cellar are present in the southwestern corner of the building on Lot 20. Lot 3, a former parking garage, had a 550-gallon gasoline UST from at least 1935 to 1977. A second gasoline UST of unknown size was associated with Lot 3 from 1947 to 1977. A geophysical survey performed in September 2017 revealed that at least three tank-like structures may still be present under the site: one under the northeastern corner of the building on Lot 12, one under the southeastern corner of the building on Lot 12, and one under the southeastern corner of the building on Lot 20.

Based on the investigations performed to date, Semi-Volatile Organic Compounds (SVOCs), volatile organic compounds (VOCs) and metals were detected above the New York State Department of Environmental Conservation (NYSDEC) Title 6 of the New York Codes, Rules and Regulations (6 NYCRR) Part 375 Restricted Use Restricted-Residential (RRU) soil cleanup objectives (SCOs) in soil samples collected site-wide. Evidence of petroleum impacts (e.g., staining, odors, and photoionization detector [PID] readings up to 3,300 parts per million [ppm]) were observed in samples collected from borings advanced on each of the three lots. Based on field observations, NYSDEC was contacted and Spill No. 1705596 was assigned specifically to Lot 12.

As suspected based on the number of USTs formerly present, petroleum-related VOCs, SVOCs, and metals were detected in groundwater under the site at concentrations above the NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1 Ambient Water Quality Standards and Guidance Values (SGVs) for Class GA groundwater.

For soil vapor, petroleum-related VOCs and chlorinated VOCs were detected in sub-slab vapor and soil samples. Although not a direct comparison standard, Tetrachloroethene (PCE) concentrations above the New York State Department of Health (NYSDOH) Air Guideline Value (AGV) were detected in the sub-slab vapor sample collected from the western part of Lot 3 and the soil vapor sample collected from the southeastern part of Lot 3. Total VOCs were detected at a maximum concentration of about 10,472 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) in the soil vapor samples collected.

5. Investigation and Cleanup Process

Application

The Applicant has applied for and been accepted into New York's Brownfield Cleanup Program as a Volunteer. This means that the Applicant was not responsible for the disposal or discharge of the contaminants or whose ownership or operation of the site took place after the discharge or disposal of contaminants. The Volunteer must fully characterize the nature and extent of contamination onsite, and must conduct a "qualitative exposure assessment," a process that characterizes the actual or potential exposures of people, fish and wildlife to contaminants on the site and to contamination that has migrated from the site.

The Applicant in its Application proposes that the site will be used for restricted residential purposes.

To achieve this goal, the Applicant will conduct investigation activities at the site with oversight provided by NYSDEC. The Brownfield Cleanup Agreement executed by NYSDEC and the Applicant sets forth the responsibilities of each party in conducting future remediation activities at the site.

Investigation

The Applicant will conduct an investigation of the site officially called a "remedial investigation" (RI). This investigation will be performed with NYSDEC oversight. The Applicant must develop a remedial investigation workplan, which is subject to public comment.

The site investigation has several goals:

- 1) Define the nature and extent of contamination in soil, surface water, groundwater and any other parts of the environment that may be affected;
- 2) Identify the source(s) of the contamination;
- 3) Assess the impact of the contamination on public health and the environment;
and
- 4) Provide information to support the development of a proposed remedy to address the contamination or the determination that cleanup is not necessary.

The Applicant will submit a draft "Remedial Investigation Work Plan" to NYSDEC for review and approval. NYSDEC will make the draft plan available to the public review during a 30-day public comment period.

When the investigation is complete, the Applicant will prepare and submit a report that summarizes the results. This report also will recommend whether cleanup action is

needed to address site-related contamination. The investigation report is subject to review and approval by NYSDEC.

NYSDEC will use the information in the investigation report to determine if the site poses a significant threat to public health or the environment. If the site is a “significant threat,” it must be cleaned up using a remedy selected by NYSDEC from an analysis of alternatives prepared by the Applicant and approved by NYSDEC. If the site does not pose a significant threat, the Applicant may select the remedy from the approved analysis of alternatives.

Interim Remedial Measures

An Interim Remedial Measure (IRM) is an action that can be undertaken at a site when a source of contamination or exposure pathway can be effectively addressed before the site investigation and analysis of alternatives are completed. If an IRM is likely to represent all or a significant part of the final remedy, NYSDEC will require a 30-day public comment period.

Remedy Selection

When the investigation of the site has been determined to be complete, the project likely would proceed in one of two directions:

1. The Applicant may recommend in its investigation report that no action is necessary at the site. In this case, NYSDEC would make the investigation report available for public comment for 45 days. NYSDEC then would complete its review, make any necessary revisions, and, if appropriate, approve the investigation report. NYSDEC would then issue a “Certificate of Completion” (described below) to the Applicant.

or

2. The Applicant may recommend in its investigation report that action needs to be taken to address site contamination. After NYSDEC approves the investigation report, the Applicant may then develop a cleanup plan, officially called a “Remedial Work Plan”. The Remedial Work Plan describes the Applicant’s proposed remedy for addressing contamination related to the site.

When the Applicant submits a draft Remedial Work Plan for approval, NYSDEC would announce the availability of the draft plan for public review during a 45-day public comment period.

Cleanup Action

NYSDEC will consider public comments, and revise the draft cleanup plan if necessary, before approving the proposed remedy. The New York State Department of Health (NYSDOH) must concur with the proposed remedy. After approval, the proposed remedy becomes the selected remedy. The selected remedy is formalized in the site Decision Document.

The Applicant may then design and perform the cleanup action to address the site contamination. NYSDEC and NYSDOH oversee the activities. When the Applicant completes cleanup activities, it will prepare a Final Engineering Report (FER) that certifies that cleanup requirements have been achieved or will be achieved within a specific time frame. NYSDEC will review the report to be certain that the cleanup is protective of public health and the environment for the intended use of the site.

Certificate of Completion

When NYSDEC is satisfied that cleanup requirements have been achieved or will be achieved for the site, it will approve the FER. NYSDEC then will issue a Certificate of Completion (COC) to the Applicant. The COC states that cleanup goals have been achieved, and relieves the Applicant from future liability for site-related contamination, subject to certain conditions. The Applicant would be eligible to redevelop the site after it receives a COC.

Site Management

The purpose of site management is to ensure the safe reuse of the property if contamination will remain in place. Site management is the last phase of the site cleanup program. This phase begins when the COC is issued. Site management incorporates any institutional and engineering controls required to ensure that the remedy implemented for the site remains protective of public health and the environment. All significant activities are detailed in a Site Management Plan.

An *institutional control* is a non-physical restriction on use of the site, such as a deed restriction that would prevent or restrict certain uses of the property. An institutional control may be used when the cleanup action leaves some contamination that makes the site suitable for some, but not all uses.

An *engineering control* is a physical barrier or method to manage contamination. Examples include: caps, covers, barriers, fences, and treatment of water supplies.

Site management also may include the operation and maintenance of a component of the remedy, such as a system that pumps and treats groundwater. Site management continues until NYSDEC determines that it is no longer needed.

Appendix A - Project Contacts and Locations of Reports and Information

Project Contacts

For information about the site's investigation and cleanup program, the public may contact any of the following project staff:

New York State Department of Environmental Conservation (NYSDEC):

Sarah Quandt
Project Manager
NYSDEC
Division of Environmental Remediation
625 Broadway – 12th Floor
Albany, NY 12233
Email: sarah.quandt@dec.ny.gov
Phone: (518) 402-9824

Thomas V. Panzone
Citizen Participation Specialist
NYSDEC Region 2
47-40 21st Street
Long Island City, NY 11101
Email: Thomas.panzone@dec.ny.gov
Phone: (718) 482-4953

New York State Department of Health (NYSDOH):

Steven Berninger
New York State Department of Health
Empire State Plaza - Corning Tower
Room 1787
Albany, NY 12237
Phone: (518) 402-7860
Email: BEEI@health.state.ny.us

Locations of Reports and Information

The facilities identified below are being used to provide the public with convenient access to important project documents:

<p>Mott Haven Library 321 East 140th Street Bronx, NY 10454 Phone: (718) 665-4878 Hours: Mon-Thurs 10am-7pm Fri-Sat 10am-5pm Sunday CLOSED</p>	<p>Bronx Community Board 1 George Rodriguez, Chairman Cedric Loftin, District Manager 3024 Third Avenue Bronx, NY 10455 (718) 585-7117</p>
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Appendix B - Site Contact List

Local Government Officials

<p>New York City Mayor's Office Hon. Bill DiBlasio City Hall 260 Broadway Ave. New York, NY 10007</p>	<p>Maris Lago, Commissioner NYC Department of City Planning 120 Broadway, 31st Floor New York, NY 10271</p>
<p>Ruben Diaz Jr. Borough of Bronx, Borough President 851 Grand Concourse, 3rd Floor Bronx, NY 10451 Hon. Letitia James Public Advocate 1 Centre Street, 15th Floor New York, NY 10007 Hon. Scott Stringer NYC Comptroller 1 Centre Street New York, NY 10007 Hon. Diana Ayala NYC Councilwoman 105 East 116th Street New York, NY 10029 Hon. Jose M. Serrano NYS Senator 1916 Park Avenue, Suite 202</p>	<p>Carol Samol Borough of Bronx, NYC Dept of City Planning 1 Fordham Plaza, #502 Bronx, NY 10458 Hon. Jose E. Serrano U.S. House of Representatives 1231 Lafayette Avenue Bronx, NY 10474 Luis M. Diaz Bronx County Clerk 851 Grand Concourse, Room 118 Bronx, NY 10451 Dan Walsh, Director NYC Office of Environmental Remediation 100 Gold Street - 2nd Floor New York, NY 10038 Julie Stein Office of Environmental Assessment & Planning</p>

<p>New York, NY 10037</p> <p>Hon. Carmen Arroyo NYS Assemblywoman 384 East 149th Street, Suite 301 Bronx, NY 10455</p>	<p>NYC Dept. of Environmental Protection 96-05 Horace Harding Expressway Flushing, NY 11373</p>
Federal Government Officials	
<p>Hon Charles Schumer U.S. Senate 780 Third Avenue, Suite 2301 New York, NY 10017</p>	<p>Hon. Kristen Gillibrand U.S. Senate 780 Third Avenue, Suite 2601 New York, NY 10017</p>
Local News Media	
<p>Bronx Times 3602 East Tremont Avenue Suite 205 Bronx, NY 10465</p> <p>New York Daily News 4 New York Plaza New York, NY 10004</p>	<p>Spectrum NY1 News 75 Ninth Avenue New York, NY 10011</p> <p>New York Post 1211 Avenue of the Americas New York, NY 10036</p> <p>Mott Haven Herald editor@motthavenherald.com</p>
Public Water Supply	
<p>Vincent Sapienza, Commissioner 59-17 Junction Boulevard Flushing, NY 11373</p>	<p>New York City Municipal Water Finance Authority 255 Greenwich Street, 6th Floor New York, NY 10007</p>
<p>New York City Water Board NYC Department of Environmental Protection 59-17 Junction Boulevard, 8th Floor Flushing, NY 11373</p>	
Schools and Day Care Facilities	
<p>Family Life Academy Charter School III (about 450 feet south of the site) Andrea Hernandez, Principal</p>	<p>Hostos Community College (about 600 feet northeast of the site) David Gomez, College President</p>

370 Gerard Avenue, Bronx, NY 10451	500 Grand Concourse, Bronx, NY 10451
Community School for Social Justice (about 650 feet south of the site) Jaime Guzman, Principal 350 Gerard Avenue, Bronx, NY 10451	Health Opportunities High School (about 750 feet south of the site) Julie McHedlishvili, Principal 350 Gerard Avenue, Bronx, NY 10451
Cuddly Bundles Childcare (about 1,090 feet northeast of the site) 137 East 150th Street, Bronx, NY 10451 (718) 402-4801	KIPP NYC College Prep (about 1,220 feet east of the site) Natalie Byrne, Principal 201 East 144th Street, Bronx, NY 10451
Children's Pride, New York City Housing Authority Day Care Center (about 1,700 feet east of the site) Maritza Chavez, 414 Morris Avenue Bronx, NY 10451	Sunshine Learning Center (about 1,730 feet southeast of the site) Kayrn Alston, School District Leader 253 East 142nd Street, Bronx, NY 10451
Cardinal Hayes High School (about 1,740 feet northeast of the site) Fr. Joseph P. Tierney, President 650 Grand Concourse, Bronx, NY 10451	Bronx 1 Success Academy Charter School (about 1,800 feet southeast of the site) Eva Moskowitz, CEO, Founder 339 Morris Avenue, Bronx, NY 10451
P.S. 018 John Peter Zenger (about 2,050 feet east of the site) Lauren Sewell Walker, Principal 502 Morris Avenue, Bronx, NY 10451	KIPP Academy Elementary School (about 2,230 feet northeast of the site) Natalie Webb, Principal 730 Concourse Village West Bronx, NY 10451
Careers in Sports High School	Family Life Academy Charter School II

(about 2,300 feet northeast of the site) Johanny Garcia, Principal 730 Concourse Village West, Bronx, NY 10451 New Explorers High School (about 2,600 feet northeast of the site) Lisa Grevenberg, Principal 730 Concourse Village West, Bronx, NY 10451	(about 2,550 feet southeast of the site) Ms. Kathy Ortiz, Principal 296 East 140th Street, Bronx, NY 10454 Bronx Leadership Academy II High School (about 2,630 feet northeast of the site) R Lobianco, Principal 730 Concourse Village West, Bronx, NY 10451
Adjacent Property Owners	
Rocket Jewelry Box Inc. 101 East 144th Street, Bronx, NY 10451	Public Storage 385 Gerard Avenue, Bronx, NY 10451
Tori Realty Corp. 120 East 144th Street, Bronx, NY 10451	125 East 144 Street Holdings LLC 121 East 144th Street, Bronx, NY 10451
Omega Radio Communications 444 Gerard Avenue, Bronx, NY 10451	Dormitory Authority of the State of NY 131 East 146th Street, Bronx, NY 10451
Jai Ganesh Realty LLC 500 Exterior Street, Bronx, NY 10451	Freiman Coated Fabric 445 River Avenue, Bronx, NY 10451
441 River Avenue Inc. 441 River Avenue, Bronx, NY 10451	339 Exterior Street Associates, LLC 399 Exterior Street, Bronx, NY 10451

Community, Civic, Religious and Environmental Organizations:

Eric Soto
Consolidated Edison Corporate Affairs
511 Theodore Fremd Avenue
Rye, NY 10580

Gabriel DeJesus, President
40th NYPD Police Precinct Council
257 Alexander Avenue
Bronx, NY 10454

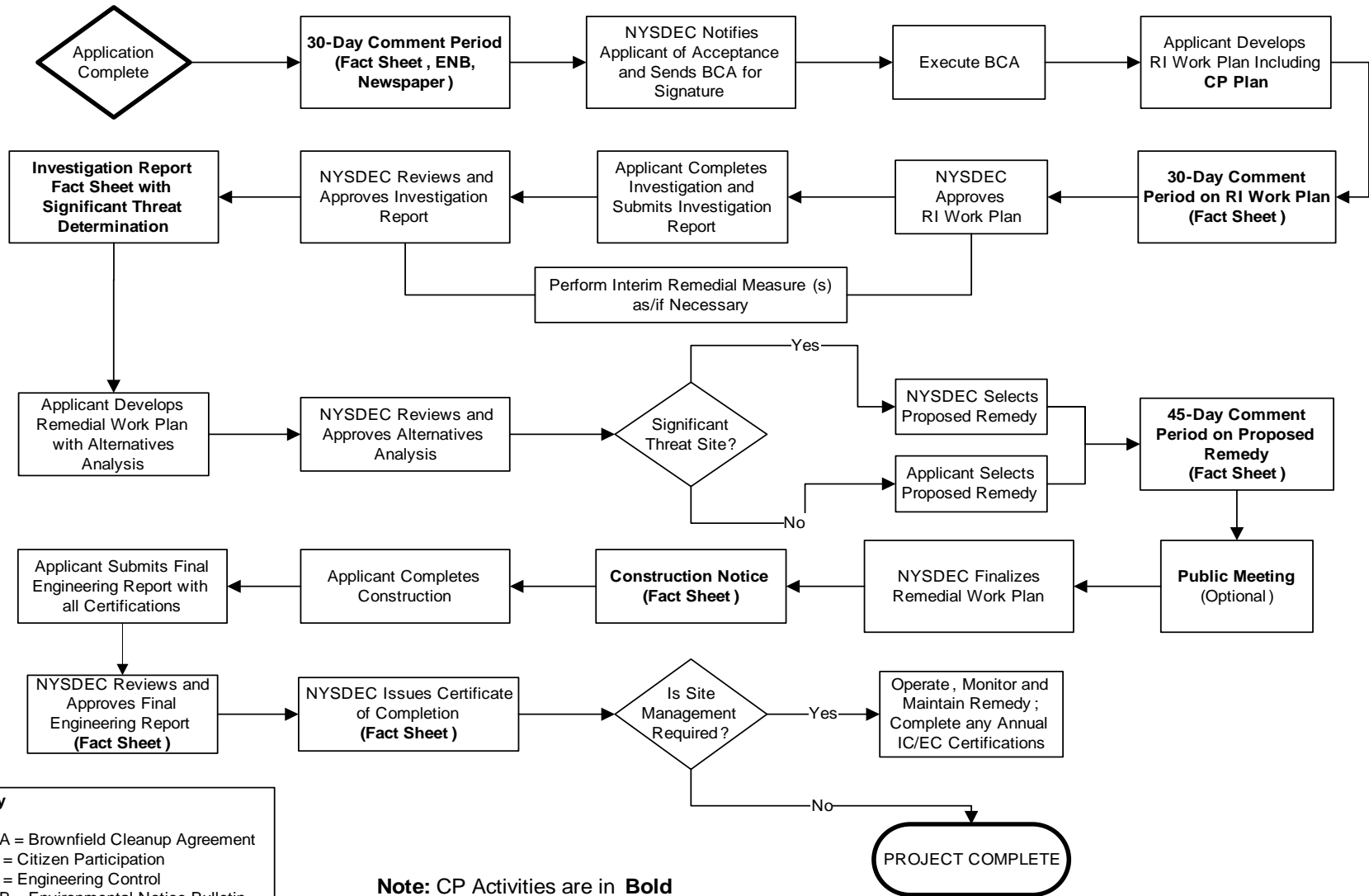
Battalion 14 Engine 60 Ladder 17
FDNY
341 EAST 143 STREET
Bronx, NY 10454

Bronx Land Trust
148 West 37th Street, 13th Floor
New York, NY 10018

Appendix C - Site Location Map



Appendix D– Brownfield Cleanup Program Process



Key
 BCA = Brownfield Cleanup Agreement
 CP = Citizen Participation
 EC = Engineering Control
 ENB = Environmental Notice Bulletin
 IC = Institutional Control
 RI = Remedial Investigation

Note: CP Activities are in **Bold**

APPENDIX D

CONSTRUCTION HEALTH AND SAFETY PLAN

CONSTRUCTION HEALTH AND SAFETY PLAN

FOR

GERARD AVENUE AND EAST 146TH STREET

**404 Exterior Street, 417 and 445 Gerard Avenue,
440 Major Wm Deegan Boulevard
Bronx, New York
NYSDEC BCP Site No. C203111**

Prepared For

**445 Gerard LLC
c/o The Domain Companies
11 Park Place, Suite 1705
New York, NY 10007**

Prepared By:

**Langan Engineering, Environmental, Surveying
Landscape Architecture, and Geology, D.P.C.
21 Penn Plaza
360 West 31st Street, 8th Floor
New York, New York 10001**

LANGAN

**August 2019
Langan Project No. 170487001**

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Attachment E	Material Data Safety Sheets / Safety Data Sheets*
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* Items to be posted prominently on site, or made readily available to personnel.

1.0 INTRODUCTION

1.1 General

This HEALTH AND SAFETY PLAN (HASP) was developed to address disturbance of known and reasonably anticipated subsurface contaminants and comply with Occupational Safety and Health Administration (OSHA) Standard 29 CFR 1910.120(b)(4), *Hazardous Waste Operations and Emergency Response* during anticipated site work 404 Exterior Street, 417 & 445 Gerard Avenue, in the borough of Bronx, New York (Tax Map Block 2351, Lots 1, 3, 12 and 20) ("the Site"). This HASP provides the minimum requirements for implementing site operations during future remedial measure activities. All contractors performing work on this site shall implement their own HASP that, at a minimum, adheres to this HASP. The contractor is responsible for their own health and safety and that of their subcontractors. Langan personnel will implement this HASP while onsite.

The management of the day-to-day site activities and implementation of this HASP in the field is the responsibility of the site Langan Field Team Leader (FTL). Assistance in the implementation of this HASP can also be obtained from the site Langan Health and Safety Officer (HSO) and the Langan Health and Safety Manager (HSM). Contractors operating on the site shall designate their own FTL, HSO and HSM. The content of this HASP may change or undergo revision based upon additional information made available to health and safety personnel, monitoring results, or changes in the work plan.

1.2 Site Location and Background

The site is located at 404 Exterior Street, 417 and 445 Gerard Avenue, and 440 Major Wm Deegan Boulevard, in the Mott Haven neighborhood of the Bronx, New York and is identified as Block 2351, Lots 1, 3, 12, and 20, on the Bronx Borough Tax Map. The site encompasses an area of about 38,000 square feet (about 0.87 acres) and is improved with a one-story warehouse with a partial cellar operated by a food distribution company (Lot 1), a vacant one-story warehouse and parking lot (Lot 3); a vacant one-story warehouse (Lot 12); and a vacant one-story warehouse with a partial cellar (Lot 20). The site is bound by East 146th Street to the north, Gerard Avenue to the east, East 144th Street to the south, and Exterior Street to the west.

Commercial and industrial facilities have occupied the site since the early 1900s. Lot 1 was occupied by a chemical laboratory/chemical manufacturing facility from 1944 to 1951, paint company from 1956 to 1965, and unspecified manufacturing facility from 1951 to 2007; Lot 3 was occupied by a parking garage from 1935 to 1977; Lot 12 was occupied by a taxi dispatch center (1930s to 1960s), an auto repair shop (1960s to 1980s), and an unspecified manufacturer (1990s to 2012); and Lot 20 was occupied by a public garage (1935-1951), a fire door

manufacturer (1970s), a Con Edison garage (1977 to 1993), and a mirror fabrication facility (1993 to 2015). According to previous Phase I Environmental Site Assessments (ESAs) prepared by AEI Consultant and GEI Consultants, operations ceased on Lot 12 after 2016, and on Lot 20 sometime between 2005 and 2016. Lot 3 was most recently occupied by an advertising company (Clear Channel Outdoor) and was vacated sometime between March 2018 and the beginning of the RI in December 2018. Lot 1 is occupied by a food distribution company.

- Lot 1: one underground storage tank (UST) of unknown size and contents and one aboveground storage tank (AST) of unknown size
- Lot 3: one 550-gallon gasoline underground storage tank (UST); one gasoline UST of unknown size
- Lot 12: Three gasoline USTs of unknown size; one UST of unknown size
- Lot 20: Four ASTs - two 275-gallon, one 12-gallon, and one of unknown size; two 550-gallon gasoline USTs;

Based on the previous subsurface investigations, the primary contaminants of concern for the site include petroleum, petroleum-related volatile organic compounds (VOCs), chlorinated VOCs, semivolatile organic compounds (SVOCs), and lead. A site location map is included as Figure 1.

1.3 Summary of Work Tasks

1.3.1 Hazardous Materials Abatement

Langan will retain a licensed hazardous materials abatement contractor to perform hazardous abatement in the buildings as specified in the work plan. Locations and specifications are outlined in the general inventory of universal and miscellaneous hazardous materials observed in the building during previous investigations. These include but not limited to the following: polychlorinated biphenyl (PCB)-containing fluorescent light fixtures such as light ballasts; stained surfaces that may have been impacted by oils or PCB-containing material; mercury switches; thermostats; meters, valves, and other mercury containing instruments; oil-filled electric machines (motors, pumps, etc.), fluorescent and other universal waste lamps, storage tanks for oil or chemicals chlorofluorocarbon (CFC) and any other refrigerant-containing appliances; batteries such as Lead-Acid, Nickel Cadmium, Lithium and Silver Oxide Batteries; fire extinguishers and fire suppressions chemicals; water treatment chemicals associated with heating/cooling; containers (e.g., drums) with fluids or articles; waste materials and other similar items that warrant special handling, tritium containing Exit signs, smoke detectors, etc. The abatement contractor shall furnish all labor and materials, equipment and incidentals required for the proper decontamination, removal and closure of hazardous materials in accordance with

federal, state and local regulations.

Langan will observed and document the abatement as specified in the work plan. Unless certified in hazardous abatement and fit test for a respirator in the last year (as documented with a fit testing card), Langan will not enter any area undergoing hazardous abatement.

1.3.2 Asbestos Abatement

Langan will retain a licensed asbestos abatement contractor to perform asbestos abatement of buildings as specified in the work plan. Locations and specifications are outlined in the general inventory of universal and miscellaneous asbestos materials observed in the building during previous investigations. The abatement contractor shall furnish all labor and materials, equipment and incidentals required for the proper decontamination, removal and closure of asbestos materials in accordance with federal, state and local regulations.

Langan will observed and document the abatement as specified in the work plan. Unless certified in asbestos abatement and fit test for a respirator in the last year (as documented with a fit testing card), Langan will not enter any area undergoing asbestos abatement.

1.3.3 Lead-Based Paint (LBP) Abatement

Langan will retain a licensed LBP abatement contractor to perform LBP abatement of buildings as specified in the work plan. Locations and specifications are outlined in the general inventory of universal and miscellaneous LBP materials observed in the building during previous investigations. The abatement contractor shall furnish all labor and materials, equipment and incidentals required for the proper decontamination, removal and closure of LBP materials in accordance with federal, state and local regulations.

Langan will observed and document the abatement as specified in the work plan. Unless certified in LBP abatement and fit test for a respirator in the last year (as documented with a fit testing card), Langan will not enter any area undergoing LBP abatement.

1.3.4 PCBs Caulk/Expansion Joint Abatement

Langan will retain a licensed PCB abatement contractor to perform PCB abatement of building PCB containing caulk and expansions joint material as specified in the work plan. Locations and specifications are outlined in the general inventory of universal and miscellaneous PCB containing caulk and expansion joint materials observed in the building during previous investigations. The abatement contractor shall furnish all labor and materials, equipment and incidentals required for the proper decontamination, removal and closure of PCB caulk and expansion joint materials in

accordance with federal, state and local regulations.

Langan will observe and document the abatement as specified in the work plan. Unless certified in PCB abatement and fit test for a respirator in the last year (as documented with a fit testing card), Langan will not enter any area undergoing PCB abatement.

1.3.5 Demolition of the Unoccupied Building

The demolition contractor shall furnish all labor and materials, equipment and incidentals required for the proper demolition of the building located north of the UST area. This activity is independent of the Langan work scope.

1.3.6 Excavation and Soil Screening

As part of excavation activities, Langan personnel will screen excavated material for visual, olfactory, and instrumental indicators suggestive of a potential chemical or petroleum release. Instrument screening for the presence of volatile organic compounds (VOCs) may be performed with a calibrated photoionization detector (PID). Contractors will excavate for utilities, foundation components and potential grading using heavy equipment and hand tools. Contractors will notify Langan personnel if they identify indications suggestive of a potential chemical or petroleum release. Contaminated material shall be handled and properly disposed in accordance with federal, state and city regulations, criteria and guidelines.

1.3.7 Soil Screening

As part of future excavation activities, Langan personnel will report when they have observed visual and olfactory indications of possible soil impact. When necessary, Langan personnel will also report concentrations of volatile organic vapors (VOCs) above background using a properly calibrated hand held photoionization detector (PID, or equivalent).

1.3.8 Stockpiling

As part of excavation activities, potentially impacted soil may be stockpiled pending laboratory analysis and determining proper off-site disposal. Visibly contaminated soil, if encountered, shall be segregated and stockpiled on at least 10 millimeters of plastic sheeting; reusable soil and fill shall be segregated and stockpiled separately from unusable fill, concrete and other debris; the stockpiles shall be kept covered with 6 millimeters thick plastic sheeting; the plastic sheeting covering the stockpiles shall be anchored firmly in place by weights, stakes, or both; the Contractor shall maintain the plastic sheeting.

1.3.9 Soil Sampling

Soil samples (waste characterization, excavation endpoint, delineation, or quality assurance/quality control [QA/QC]) may be collected during construction, as required. Langan personnel will coordinate with the contractor in sampling soil (in accordance with the SMP, where applicable). If stockpile soil sampling is required from above ground level, suitable excavation equipment (i.e., excavator, front end loader) should be used to collect the sample. Soil samples for excavation endpoint or delineation sampling (along with QA/QC samples) may be collected into laboratory-supplied batch-certified clean glassware and submitted to a NYSDOH ELAP-certified laboratory and analyzed in accordance with work plan specifications.

1.3.10 Hot Spot Delineation

If required, Langan may retain a drilling contractor to advance soil borings to a depth below grade surface (bgs) as will be specified in the work plan. Borings locations will be based on the results of new analytical data, site inspection and document review. Hot spot soil delineation cannot commence until this HASP is updated to define particulate monitoring action levels which are derived from the total and toxicity characteristic leaching procedure (TCLP) analytical data.

The drilling contractor will contact the appropriate utility mark-out authority and make available to their drilling staff the verification number and effective dates. The borings may be filled with clean soil cuttings after samples are collected.

Langan will screen soil for visual, olfactory, and instrumental indicators suggestive of a potential petroleum release. Instrument screening for the presence of VOCs may be performed with a calibrated PID. Langan will collect soil samples as specified in the hot spot delineation portion of the work plan. Soil samples will be submitted to a NYSDOH ELAP-certified laboratory and analyzed in accordance with work plan specifications.

1.3.11 Hot Spot Soil Excavation and Disposal

If required, Langan will observe activities associated with the excavation and disposal of hot spot impacted soil discussed in the preceding task. Langan personnel will coordinate with the excavator contractor so that the boundaries of the hot spot excavation correspond to with the approved disposal facilities instructions. Langan personnel are not to sign the hazardous waste manifests unless instructed by the Project Manager.

Hot spot soil excavation and disposal cannot commence until this HASP is updated to define particulate monitoring action levels which are derived from the total and TCLP analytical data.

1.3.12 Characterization of Excavated Material

When required by the work plan, Langan personnel will characterize excavated soil or clean backfill in accordance with Langan standards.

1.3.13 In-Situ Groundwater Treatment

Langan proposes an in-situ treatment of impacted groundwater by injecting activated persulfate, liquid-activated carbon, and oxygen release compound oxygen into new or existing wells located in on the site. The release of dissolved oxygen supports a number of biological oxidation pathways that would be expected to result in the breakdown of petroleum-related VOCs. Langan will oversee the treatability/feasibility study and based on the data derived, design and document the installation and start-up of the in-situ groundwater treatment system.

1.3.14 Groundwater Sampling

Groundwater samples may be collected from one or more of the existing on-site monitoring wells in accordance with the Langan Low Flow Groundwater Sampling SOP (SOP #12). Groundwater samples will be submitted to an NYSDOH ELAP-certified laboratory and analyzed for constituents as specified in the work plan.

1.3.15 Excavation Backfill

Areas of the site that were over-excavated may be backfilled to development grade (i.e., the grade required to complete construction of the foundation and sidewalk extension). Imported material will consist of clean fill that meets the 6 New York Codes, Rules and Regulations (NYCRR) Part 375-6.8(a) Unrestricted Use Soil Cleanup Objectives (UU SCOs) or other acceptable fill material such as virgin stone from a permitted mine or quarry or recycled concrete aggregate (RCA), from a New York State Department of Environmental Conservation (NYSDEC)-registered facility in compliance with 6 NYCRR Part 360 registration and permitting requirements for the period of RCA acquisition. Imported RCA must be derived from recognizable and uncontaminated concrete. RCA is not acceptable for, and will not be used as, site cover or drainage material.

1.3.16 Decommissioning and Removal of Storage Tanks, Oil/Water Separators & Piping

When encountered, Langan retain a licensed petroleum storage tank removal contractor to excavate and remove all underground storage tanks (USTs), above ground storage tanks (ASTs), oil/water separators and related piping. The tank decommissioning and removal contractor shall furnish all labor and materials, equipment and incidentals required for the proper

decontamination, removal and closure of any tanks in accordance with federal, state and local regulations. Langan personnel will monitor VOCs with a calibrated PID downwind from the UST excavation and record the PID readings.

1.3.17 Construction Activity Inspections and Observations

Langan may observe construction activities including the installation of piles, caissons and rock anchors. In addition, Langan may observe and record data from a lateral load test. These activities are to be done in accordance with the work plan. The installation and assembly activities performed by the contractor in accordance with the construction documents, remedial plan, and special inspection requirements administered by the New York City Department of Buildings. Materials used for construction will be inspected by Langan for conformance to the design documents.

1.3.18 Installation of Waterproofing and Vapor Barrier

When required, a properly licensed contractor will install the waterproofing membrane and vapor barrier system in accordance with specifications outlined in the work plan. Langan or other authorized personnel, as specified in the contract documents, may inspect and document the waterproofing and vapor barrier installation and in accordance with the specification outlined in the work plan.

1.3.19 Storm water Pollution Prevention Inspection

In accordance with the work plan, Langan personnel with Storm Water Pollution Prevention (SWPPP) inspection credentials will conduct SWPPP inspections.

1.3.20 Drum Sampling

Excess or impacted soil and water that is drummed during activities must be labeled in accordance with the Langan Drum Labeling Standard Operating Procedure (SOP-#9). Langan personnel may collect drum samples, if required, prior to off-site drum disposal. If collected, samples will be placed into laboratory-supplied batch-certified clean glassware and submitted to a NYSDOH ELAP-certified laboratory.

2.0 IDENTIFICATION OF KEY PERSONNEL/HEALTH AND SAFETY PERSONNEL

The following briefly describes the health and safety (H&S) designations and general responsibilities that may be employed for this site. The titles have been established to accommodate the project needs and requirements and ensure the safe conduct of site activities. The H&S personnel requirements for a given work location are based upon the proposed site

activities.

2.1 Langan Project Manager

The Langan Environmental Project Managers (PM) is Julia Leung. The Geotechnical Project Manager is James Delimitros. Their responsibilities include:

- Ensuring that this HASP is developed, current, and approved prior to on-site activities.
- Ensuring that all the tasks in the project are performed in a manner consistent with Langan's comprehensive *Health and Safety Program for Hazardous Waste Operations* and this HASP.

2.2 Langan Corporate Health and Safety Manager

The Langan Corporate Health and Safety Manager (HSM) is Tony Moffa. His responsibilities include:

- Updating the *Construction Health and Safety Program for Hazardous Waste Operations*.
- Assisting the site Health and Safety Officer (HSO) with development of the HASP, updating HASP as dictated by changing conditions, jobsite inspection results, etc. and approving changes to this HASP.
- Assisting the HSO in the implementation of this HASP and conducting Jobsite Safety Inspections and assisting with communication of results and correction of shortcomings found.
- Maintaining records on personnel (medical evaluation results, training and certifications, accident investigation results, etc.).

2.3 Langan Site Health & Safety Officer

The Langan site HSO is William Bohrer. His responsibilities include:

- Participating in the development and implementation of this HASP.
- When on-site, assisting the Langan Field Team Leader in conducting Tailgate Safety Meetings and Jobsite Safety Inspections and correcting any shortcomings in a timely manner.
- Ensuring that proper PPE is available, worn by employees, and properly stored and maintained.
- Controlling entry into and exit from the site contaminated areas or zones.
- Monitoring employees for signs of stress, such as heat stress, fatigue, and cold exposure.
- Monitoring site hazards and conditions.

- Knowing (and ensuring that all site personnel also know) emergency procedures, evacuation routes, and the telephone numbers of the ambulance, local hospital, poison control center, fire department, and police department.
- Resolving conflicts that may arise concerning safety requirements and working conditions.
- Reporting all incidents, injuries and near misses to the Langan Incident/Injury Hotline immediately and the client representative.

2.4 Langan Field Team Leader Responsibilities

The Langan Field Team Leader (FTL) is to be determined prior to the start of the start of field activities. The Field Team Leader's responsibilities include:

- The management of the day-to-day site activities and implementation of this HASP in the field.
- Participating in and/or conducting Tailgate Safety Meetings and Jobsite Safety Inspections and correcting any shortcomings in a timely manner.
- When a Community Air Monitoring Operating Program (CAMP) is part of the scope, the FTL will set up and maintaining community air monitoring activities and instructing the responsible contractor to implement organic vapor or dust mitigation when necessary.
- Overseeing the implementation of activities specified in the work plan.

2.5 Contractor Responsibilities

The contractor shall develop and implement their own HASP for their employees, lower-tier subcontractors, and consultants. The contractor is responsible for their own health and safety and that of their subcontractors. Contractors operating on the site shall designate their own FTL, HSO and HSM. The contractor's HASP will be at least as stringent as this Langan HASP. The contractor must be familiar with and abide by the requirements outlined in their own HASP. A contractor may elect to adopt Langan's HASP as its own provided that it has given written notification to Langan, but where Langan's HASP excludes provisions pertinent to the contractor's work (i.e., confined space entry); the contractor must provide written addendums to this HASP. Additionally, the contractor must:

- Ensure their employees are trained in the use of all appropriate PPE for the tasks involved;
- Notify Langan of any hazardous material brought onto the job site or site related area, the hazards associated with the material, and must provide a material safety data sheet (MSDS) or safety data sheet (SDS) for the material;
- Have knowledge of, understand, and abide by all current federal, state, and local health and safety regulations pertinent to the work;

- Ensure their employees handling hazardous materials, if identified at the Site, have received current training in the appropriate levels of 29 CFR 1910.120, *Hazardous Waste Operations and Emergency Response* (HAZWOPER) if hazardous waste is identified at the Site;
- Ensure their employees handling hazardous materials, if identified at the Site, have been fit-tested within the year on the type respirator they will wear; and
- Ensure all air monitoring is in place pertaining to the health and safety of their employees as required by OSHA 1910.120; and
- All contractors must adhere to all federal, state, and local regulatory requirements.

3.0 TASK/OPERATION SAFETY AND HEALTH RISK ANALYSES

A Task-Hazard Analysis (Table 1) was completed for general construction hazards that may be encountered at the Site. The potential contaminants that might be encountered during the field activities and the exposure limits are listed in Table 2 complete inventory of MSDS/SDS for chemical products used on site is included as Attachment E.

3.1 Specific Task Safety Analysis

3.1.1 Hazardous Materials Abatement

Langan employees shall not enter areas undergoing hazardous materials abatement unless they have received specific training in hazardous materials abatement and have the correct PPE to do so. In addition, the Langan employee must have with them certification that they have received respirator fit testing within 1 year of the abatement activity and are donning the specific respirator document to fit them during fit testing.

3.1.2 Asbestos Abatement

Langan employees shall not enter areas undergoing asbestos materials abatement unless they have received specific training in asbestos materials abatement and have the correct PPE to do so. In addition, the Langan employee must have with them certification that they have received respirator fit testing within 1 year of the abatement activity and are donning the specific respirator document to fit them during fit testing.

3.1.3 Lead-Based Paint (LBP) Abatement

Langan employees shall not enter areas undergoing LBP materials abatement unless they have received specific training in LBP materials abatement and have the correct PPE to do so. In addition, the Langan employee must have with them certification that they have received

respirator fit testing within 1 year of the abatement activity and are donning the specific respirator document to fit them during fit testing.

3.1.4 PCBs Caulk/Expansion Joint Abatement

Langan employees shall not enter areas undergoing PCB containing caulk and expansion joint materials abatement unless they have received specific training in PCB containing caulk and expansion joint materials abatement and have the correct PPE to do so. In addition, the Langan employee must have with them certification that they have received respirator fit testing within 1 year of the abatement activity and are donning the specific respirator document to fit them during fit testing.

3.1.5 Soil Screening and Sampling

Sampling the soil requires the donning of chemical resistant gloves in addition to the standard PPE. Langan personnel are not to operate drilling or excavation equipment nor open sampling devices (acetate liners, sonic sample bags, etc.). These tasks are to be completed by the driller or excavation contractor.

3.1.6 Stockpile Sampling

The Langan personnel are not to scale or otherwise climb stockpiles. If the soil sampling plan requires sampling from the stockpile above ground level, samples are to be obtained using suitable excavation equipment operated by the contractor (i.e. front end loader).

3.1.7 Hot Spot Delineation

If hot spot delineation is undertaken, sampling requires additional precautions to mitigate exposure. Langan will monitor dust using air-dust monitoring equipment (DustTrak™ 2 or equivalent). The dust monitoring equipment should be equipped with an alarm. The HSO will provide alarm limits when the data triggering hot spot delineation is available. Work cannot commence until the action limits are set by the HSAO. The primary alarm should be set for a specific value in milligrams per cubic meter (mg/m^3) above the 15 minute average background based on analytical data and the time weighted average exposure limits for the constituent of concern (COC). The secondary alarm may be set for a value based on the PEL for the specific COC.

If the primary alarm activates during work, the PM notified, and dust control measures should be implemented and all workers should don half face respirator with HEPA dust filters to continue to work. Dust control measures include applying a fine water spray wet all surfaces in the work

area to dampen dust and activating ventilation. Workers can remove half respirators when air borne dust concentrations return to background. If dust mitigation does not lower dust concentrations and dust levels continue to climb, all work should cease when dust concentrations exceed secondary alarm level and the PM should be notified.

3.1.8 Removal of Storage Tanks

If UST excavation and removal activity is initiated, Langan personnel will conduct air monitoring for lower explosion limit (LEL) conditions within the UST excavation itself. This task is to be performed using calibrated air monitoring equipment designed to sound an audio alarm when atmospheric concentrations of VOC are within 10% of the LEL. In normal atmospheric oxygen concentrations, the LEL monitoring may be done with a Wheatstone bridge/catalytic bead type sensor (i.e. MultiRAE). However in oxygen depleted atmospheres (confined space), only an LEL designed to work in low oxygen environments may be used. Best practices require that the LEL monitoring unit be equipped with a long sniffer tube to allow the LEL unit to remain outside the UST excavation. Langan personnel are not to enter the UST excavation nor enter an excavated UST.

In addition to monitoring LEL, Langan personnel will monitor atmospheric VOC concentrations directly downwind of the UST excavation in accordance with standard CAMP procedures using calibrated air monitoring equipment.

3.1.9 Indoor Drilling and Excavation

The work scope may require indoor work or work in locations where there may not be adequate ventilation sufficient to safely operate any rig or excavation equipment powered by an internal combustion engine. Where possible, all such work should be done by equipment powered by electricity. If such equipment is used and must be directly wired to the buildings electrical system or to an independent system, this work must be completed by a licensed electrician in accordance with all electrical codes applicable to the work.

Indoor work which is to be completed with equipment powered by an internal combustion engine must incorporate air monitoring of carbon monoxide (CO) using calibrated air monitoring equipment (MultiRAE or equivalent). In addition, the work plan should incorporate mitigation for venting engine exhaust fumes directly to the outdoors and for circulating fresh air into the work area.

The OSHA Time Weighted Average (TWA) Permissible Exposure Limit (PEL) for CO from 50 to 35 parts per million (ppm). Langan will monitor CO with a suitable monitoring device. If CO levels exceed 5 ppm, Langan will instruct contractors to begin mitigation measures. These

measures are at a minimum:

- Increase air circulation using industrial size fans to bring additional fresh air into the building or vent exhaust to the outside;
- Modify the passive exhaust method being used to increase venting circulation by using wider diameter tubing or sealing tubing connections; or
- Modify the work schedule where the rig is turned off to allow time for CO levels to fall back to background

All work must cease if CO levels reach 35 ppm. The Langan engineer is to report to the PM and H&S officer when an action level is reached.

3.1.10 Construction Dewatering

Langan may sample dewatering treatment system liquids from either the direct discharge standpipe or from a sample port or valve built into the storage tank, Langan will don the necessary PPE including nitrile gloves and if necessary, facial splash guard. Sample ports and valves may only be sampled if they are accessible at ground level. Sampling from heights over 6 feet is prohibited unless Langan field personnel are fully accredited in fall protection and is wearing approved fall protection safety apparatus. The discharge samples will be submitted to an ELAP-certified laboratory for analysis in accordance with the work plan.

3.1.11 Construction Activity Inspection

The contractor will operate equipment used to install sheet piles, caissons and rock anchors. In addition, the contractor will assemble and install the equipment to perform lateral load-test. Langan personnel will inspect in accordance with specification in the work plan and record the data the work plan requires. The installation of the sheet piles, caissons and rock anchors is to be done exclusively by the contractor following their own health and safety specifications outlined in their HASPs. Other activities assigned to Langan as part of construction activities are limited to inspection and observations as specified in the work pan. Langan personnel are not to operate or assist in the operation of equipment used in construction activities unless defined as part of an inspection or observation in the work plan.

3.1.12 Backfilling of Excavated Areas to Development Grade

The backfilling contractor will provide their employees with equivalent PPE to protect them from the specific hazards likely to be encountered on-site. Selection of the appropriate PPE must take into consideration: (1) identification of the hazards or suspected hazards; (2) potential exposure routes; and, (3) the performance of the PPE construction (materials and seams) in providing a barrier to these hazards. Langan personnel may survey backfilling material with a calibrated PID;

however, as they are not permitted to climb the material delivery truck, the contractor must provide samples from each truck as required.

3.1.13 Installation of Waterproofing and Vapor Barrier

Langan personnel are there only to observe and record the data required in the work plan for the installation of waterproofing and vapor barrier. Installation and assemblage of the waterproofing and vapor barrier are to be completed in accordance with the work plan, manufacturer specification and by the contractor following their own health and safety specifications outlined in their HASPs.

3.1.14 Storm water Pollution Prevention Inspection

When performing SWPPP inspections, Langan personnel will don all required PPE and maintain awareness to site traffic and site activities. If using a cell phone or tablet application to record the pertinent data, the engineer will do so in an area protected from site traffic and activities. Certain types of inspections may require additional PPE and safety training including fall protection or the donning of a personal flotation device (PFD) when near open water.

3.1.15 Drum Sampling

Drilling fluid, rinse water, grossly-contaminated soils samples and cuttings may be containerized in 55-gallon drums for transport and disposal off site. Each drum must be labeled in accordance with the Langan Drum Labeling Standard Operating Procedure (SOP-#9). Langan may collect drum samples, as required, prior to off-site drum disposal. Samples will be placed into laboratory-supplied batch-certified clean glassware and submitted to a NYSDOH ELAP-certified laboratory.

Langan employees and contractors are not to move or open any orphaned (unlabeled) drum found on the site without approval of the project manager.

3.2 Radiation Hazards

No radiation hazards are known or expected at the site.

3.3 Physical Hazards

Physical hazards, which may be encountered during site operations for this project, are detailed in Table 1.

3.3.1 Explosion

No explosion hazards are expected for the scope of work at this site.

3.3.2 Heat Stress

The use of Level C protective equipment, or greater, may create heat stress. Monitoring of personnel wearing personal protective clothing should commence when the ambient temperature is 72°F or above. Table 6 presents the suggested frequency for such monitoring. Monitoring frequency should increase as ambient temperature increases or as slow recovery rates are observed. Refer to the Table 7 to assist in assessing when the risk for heat related illness is likely. To use this table, the ambient temperature and relative humidity must be obtained (a regional weather report should suffice). Heat stress monitoring should be performed by the HSO or the FTL, who shall be able to recognize symptoms related to heat stress.

To monitor the workers, be familiar with the following heat-related disorders and their symptoms:

- **Heat Cramps:** Painful spasm of arm, leg or abdominal muscles, during or after work
- **Heat Exhaustion:** Headache, nausea, dizziness; cool, clammy, moist skin; heavy sweating; weak, fast pulse; shallow respiration, normal temperature
- **Heat Stroke:** Headache, nausea, weakness, hot dry skin, fever, rapid strong pulse, rapid deep respirations, loss of consciousness, convulsions, coma. *This is a life threatening condition.*

Do not permit a worker to wear a semi-permeable or impermeable garment when they are showing signs or symptoms of heat-related illness.

To monitor the worker, measure:

- **Heart rate:** Count the radial pulse during a 30-second period as early as possible in the rest period. If the heart rate exceeds 100 beats per minute at the beginning of the rest period, shorten the next work cycle by one-third and keep the rest period the same. If the heart rate still exceeds 100 beats per minute at the next rest period, shorten the following work cycle by one-third. A worker cannot return to work after a rest period until their heart rate is below 100 beats per minute.
- **Oral temperature:** Use a clinical thermometer (3 minutes under the tongue) or similar device to measure the oral temperature at the end of the work period (before drinking). If oral temperature exceeds 99.6°F (37.6°C), shorten the next work cycle by one-third without changing the rest period. A worker cannot return to work after a rest period until their oral temperature is below 99.6°F. If oral temperature still exceeds 99.6°F (37.6°C)

at the beginning of the next rest period, shorten the following cycle by one-third. Do not permit a worker to wear a semi-permeable or impermeable garment when oral temperature exceeds 100.6°F (38.1°C).

Prevention of Heat Stress - Proper training and preventative measures will aid in averting loss of worker productivity and serious illness. Heat stress prevention is particularly important because once a person suffers from heat stroke or heat exhaustion, that person may be predisposed to additional heat related illness. To avoid heat stress the following steps should be taken:

- Adjust work schedules.
- Mandate work slowdowns as needed.
- Perform work during cooler hours of the day if possible or at night if adequate lighting can be provided.
- Provide shelter (air-conditioned, if possible) or shaded areas to protect personnel during rest periods.
- Maintain worker's body fluids at normal levels. This is necessary to ensure that the cardiovascular system functions adequately. Daily fluid intake must approximately equal the amount of water lost in sweat, i.e., eight fluid ounces (0.23 liters) of water must be ingested for approximately every eight ounces (0.23 kg) of weight lost. The normal thirst mechanism is not sensitive enough to ensure that enough water will be drunk to replace lost sweat. When heavy sweating occurs, encourage the worker to drink more. The following strategies may be useful:
 - Maintain water temperature 50° to 60°F (10° to 16.6°C).
 - Provide small disposal cups that hold about four ounces (0.1 liter).
 - Have workers drink 16 ounces (0.5 liters) of fluid (preferably water or dilute drinks) before beginning work.
 - Urge workers to drink a cup or two every 15 to 20 minutes, or at each monitoring break. A total of 1 to 1.6 gallons (4 to 6 liters) of fluid per day are recommended, but more may be necessary to maintain body weight.
 - Train workers to recognize the symptoms of heat related illness.

3.3.3 Cold-Related Illness

If work on this project begins in the winter months, thermal injury due to cold exposure can become a problem for field personnel. Systemic cold exposure is referred to as hypothermia. Local cold exposure is generally called frostbite.

- **Hypothermia** - Hypothermia is defined as a decrease in the patient core temperature below 96°F. The body temperature is normally maintained by a combination of central (brain and spinal cord) and peripheral (skin and muscle) activity. Interference with any of these mechanisms can result in hypothermia, even in the absence of what normally is

considered a "cold" ambient temperature. Symptoms of hypothermia include: shivering, apathy, listlessness, sleepiness, and unconsciousness.

- **Frostbite** - Frostbite is both a general and medical term given to areas of local cold injury. Unlike systemic hypothermia, frostbite rarely occurs unless the ambient temperatures are less than freezing and usually less than 20°F. Symptoms of frostbite are: a sudden blanching or whitening of the skin; the skin has a waxy or white appearance and is firm to the touch; tissues are cold, pale, and solid.

Prevention of Cold-Related Illness - To prevent cold-related illness:

- Educate workers to recognize the symptoms of frostbite and hypothermia
- Identify and limit known risk factors:
- Assure the availability of enclosed, heated environment on or adjacent to the site.
- Assure the availability of dry changes of clothing.
- Assure the availability of warm drinks.
- Start (oral) temperature recording at the job site:
- At the FSO or Field Team Leader's discretion when suspicion is based on changes in a worker's performance or mental status.
- At a worker's request.
- As a screening measure, two times per shift, under unusually hazardous conditions (e.g., wind-chill less than 20°F, or wind-chill less than 30°F with precipitation).
- As a screening measure whenever anyone worker on the site develops hypothermia.

Any person developing moderate hypothermia (a core temperature of 92°F) cannot return to work for 48 hours.

3.3.4 Noise

Work activities during the proposed activities may be conducted at locations with high noise levels from the operation of equipment. Hearing protection will be used as necessary.

3.3.5 Hand and Power Tools

The use of hand and power tools can present a variety of hazards, including physical harm from being struck by flying objects, being cut or struck by the tool, fire, and electrocution. All hand and power tools should be inspected for health and safety hazards prior to use. If deemed unserviceable/un-operable, notify supervisor and tag equipment out of service. Ground Fault Circuit Interrupters (GFCIs) are required for all power tools requiring direct electrical service.

3.3.6 Slips, Trips and Fall Hazards

Care should be exercised when walking at the site, especially when carrying equipment. The presence of surface debris, uneven surfaces, pits, facility equipment, and soil piles contribute to tripping hazards and fall hazards. To the extent possible, all hazards should be identified and marked on the site, with hazards communicated to all workers in the area.

3.3.7 Utilities (Electrocution and Fire Hazards)

3.3.7.1 Utility Clearance

The possibility of encountering underground utilities poses fire, explosion, and electrocution hazards. All excavation work will be preceded by review of available utility drawings and by notification of the subsurface work to the N.Y. One –Call–Center.

3.3.7.2 Lockout-Tagout

The potential adverse effects of electrical hazards include burns and electrocution, which could result in death. Therefore, there is a procedure that establishes the requirements for the lockout/tagout (LOTO) of energy isolating devices in accordance with the OSHA electrical lockout and tagging requirements as specified in 29 CFR 1926.417. This procedure will be used to ensure that all machines and equipment are isolated from potentially hazardous energy. If possible, equipment that could cause injury due to unexpected energizing, start-up, or release of stored energy will be locked/tagged, before field personnel perform work activities.

Depending upon the specific work task involved, Langan’s SSC or FTL will serve as the authorized lockout/tagout coordinator, implement the lockout/tagout procedure and will be responsible to locate, lock and tag valves, switches, etc.

SPECIAL NOTE: Project personnel will assume that all electrical equipment at surface, subsurface and overhead locations is energized, until equipment has been designated and confirmed as de-energized by a utility company representative. Langan will notify the designated utility representative prior to working adjacent to this equipment and will verify that the equipment is energized or de-energized in the vicinity of the work location.

No project work shall be performed by Langan personnel or subcontractors on or near energized electrical lines or equipment unless hazard assessments are completed in writing, reviewed by Langan’s SSHO, and clearly communicated to the field personnel.

The FTL shall conduct a survey to locate and identify all energy isolating devices. They shall be certain which switches, valves or other isolating devices apply to the equipment. The

lockout/tagout procedure involves, but is not limited to, electricity, motors, steam, natural gas, compressed air, hydraulic systems, digesters, sewers, etc.

3.3.8 Physical Hazard Considerations for Material Handling

There are moderate to severe risks associated with moving heavy objects at the Site. The following physical hazards should be considered when handling materials at the Site:

- Heavy objects will be lifted and moved by mechanical devices rather than manual effort whenever possible.
- The mechanical devices will be appropriate for the lifting of moving task and will be operated only by trained and authorized personnel.
- Objects that require special handling or rigging will only be moved under the guidance of a person who has been specifically trained to move such objects.
- Lifting devices will be inspected, certified, and labeled to confirm their weight capacities. Defective equipment will be taken out of service immediately and repaired or destroyed.
- The wheels of any trucks being loaded or unloaded will be chocked to prevent movement. Outriggers will be fully extended on a flat, firm surface during operation.
- Personnel will not pass under a raised load, nor will a suspended load be left unattended.
- Personnel will not be carried on lifting equipment, unless it is specifically designed to carry passengers.
- All reciprocating, rotating, or other moving parts will be guarded at all times.
- Accessible fire extinguishers, currently (monthly) inspected, will be available in all mechanical lifting devices.
- Verify all loads/materials are secure before transportation.

Material handling tasks that are unusual or require specific guidance will need a written addendum to this HASP. The addendum must identify the lifting protocols before the tasks are performed. Upon approval, the plan must be reviewed with all affected employees and documented. Any deviation from a written plan will require approval by the Langan HSM.

3.3.9 Hearing Conservation

Under the construction industry standard, the maximum permissible occupational noise exposure is 90 dbA (8-hour TWA), and noise levels in excess of 90 dbA must be reduced through feasible administrative and engineering controls. (20 CFR 1926.52). Hearing protection is required when working within 15 feet of vacuum extraction equipment and drill rigs.

3.3.10 Open Water

Employees working over or near water, where the danger of drowning exists, shall be provided with U.S. Coast Guard-approved life jackets or buoyant work vests. Prior to and after each use, the buoyant work vests or life preservers shall be inspected for defects which would alter their strength or buoyancy. Defective units shall not be used.

And should a worker fall into the water, OSHA requires (29 CFR 1926.106(c)) that ring buoys with at least 90 feet of line shall be provided and readily available for emergency rescue operations. The distance between ring buoys shall not exceed 200 feet. Another remedial action required by OSHA (29 CFR 1926.106(d)) is the use of lifesaving skiffs.

OSHA requires that at least one lifesaving skiff shall be immediately available at locations where employees are working over or adjacent to water and must include the following provisions.

- The skiff must be in the water or capable of being quickly launched by one person.
- At least one person must be present and specifically designated to respond to water emergencies and operate the skiff at all times when there are employees above water.
- When the operator is on break another operator must be designated to provide requisite coverage when there are employees above water.
- The designated operator must either have the skiff staffed at all times or have someone remain in the immediate area such that the operator can quickly reach the skiff and perform rescue services.
- The skiff operator maybe assigned other tasks provided the tasks do not interfere with the operator's ability to quickly reach the skiff.
- A communication system, such as a walkie-talkie, must be used to inform the skiff operator of an emergency and to inform the skiff operator where the skiff is needed.
- The skiff must be equipped with both a motor and oars.

With regard to the number of skiffs required and the appropriate maximum response time, the following factors must be evaluated:

- The number of work locations where there is a danger of falling into water;
- The distance to each of those locations;
- Water temperature and currents;
- Other hazards such as, but not limited to, rapids, dams, and water intakes;

Other regulations that present S&H practices and PPE for work on or near water include: 29 CFR 1910, Subpart T (401 – 440)

3.4 Biological Hazards

3.4.1 Animals

There is a possibility of encountering wildlife including reptiles, rodents and other small and medium size mammals. The Langan personnel is to avoid interacting with any wildlife.

3.4.2 Insects

Ticks and other biting or stinging insects may to be encountered during site operations. Langan personnel should take necessary precautions including donning long sleeve shirts and insecticide to prevent bites and stings. After field work, Langan personnel should perform a complete visual inspection of their clothing to insure they are not inadvertently harboring ticks. If they do observe a tick bite, they are to contact the HSM or HSO and report the event.

3.4.3 Plants

Poisonous plants may to be encountered during site operations. Langan personnel should take necessary precautions including donning long sleeve shirts and applying preventative poison Ivy/Sumac lotion to prevent or limit effects of exposure. If after field work, Langan employees do observe a reaction to poisonous plant exposure, they are to contact the HSM or HSO and report the event.

3.5 Additional Safety Analysis

3.5.1 Presence of Non-Aqueous Phase Liquids (NAPL)

There is potential for exposure to NAPL at this site. Special care and PPE should be considered when NAPL is observed as NAPL is a typically flammable fluid and releases VOCs known to be toxic and/or carcinogenic. If NAPL is present in a monitoring well, vapors from the well casing may contaminate the work area breathing zone with concentrations of VOCs potentially exceeding health and safety action levels. In addition, all equipment used to monitor or sample NAPL (or ground water from wells containing NAPL) must be intrinsically safe. Equipment that directly contacts NAPL must also be resistant to organic solvents.

At a minimum, a PID should be used to monitor for VOCs when NAPL is observed. If NAPL is expected to be observed in an excavation or enclosed area, air monitoring must be started using calibrated air monitoring equipment designed to sound an audio alarm when atmospheric concentrations of VOC are within 10% of the LEL. In normal atmospheric oxygen concentrations, the LEL monitoring may be done with a Wheatstone bridge/catalytic bead type sensor (i.e. MultiRAE). However in oxygen depleted atmospheres (confined space), only an LEL designed to work in low oxygen environments may be used. Best practices require that the LEL monitoring

unit be equipped with a long sniffer tube to allow the LEL unit to remain outside the UST excavation.

When NAPL is present, Langan personnel are required to use disposable nitrile gloves at all times to prevent skin contact with contaminated materials. They should also consider having available a respirator and protective clothing (Tyvek® overalls), especially if NAPL is in abundance and there are high concentrations of VOCs.

All contaminated disposables including PPE and sampling equipment must be properly disposed of in labeled 55-gallon drums

3.6 Job Safety Analysis

A Job Safety Analysis (JSA) is a process to identify existing and potential hazards associated with each job or task so these hazards can be eliminated, controlled or minimized. A JSA will be performed at the beginning of each work day, and additionally whenever an employee begins a new task or moves to a new location. All JSAs must be developed and reviewed by all parties involved. A blank JSA form and documentation of completed JSAs are in Attachment G.

4.0 PERSONNEL TRAINING

4.1 Basic Training

Completion of an initial 40-hour HAZWOPER training program as detailed in OSHA's 29 CFR 1910.120(e) is required for all employees working on a site engaged in hazardous substance removal or other activities which expose or potentially expose workers to hazardous substances, health hazards, or safety hazards as defined by 29 CFR 1910.120(a). Annual 8-hour refresher training is also required to maintain competencies to ensure a safe work environment. In addition to these training requirements, all employees must complete the OSHA 10 hour Construction Safety and Health training and supervisory personnel must also receive eight additional hours of specialized management training. Training records are maintained by the HSM.

4.2 Initial Site-Specific Training

Training will be provided to specifically address the activities, procedures, monitoring, and equipment for site operations at the beginning of each field mobilization and the beginning of each discrete phase of work. The training will include the site and facility layout, hazards, and emergency services at the site, and will detail all the provisions contained within this HASP. For a HAZWOPER operation, training on the site must be for a minimum of 3 days. Specific issues that will be addressed include the hazards described in Section 3.0.

4.3 Tailgate Safety Briefings

Before starting work each day or as needed, the Langan HSO will conduct a brief tailgate safety meeting to assist site personnel in conducting their activities safely. Tailgate meetings will be documented in Attachment H. Briefings will include the following:

- Work plan for the day;
- Review of safety information relevant to planned tasks and environmental conditions;
- New activities/task being conducted;
- Results of Jobsite Safety Inspection Checklist;
- Changes in work practices;
- Safe work practices; and
- Discussion and remedies for noted or observed deficiencies.

5.0 MEDICAL SURVEILLANCE

All personnel who will be performing field work involving potential exposure to toxic and hazardous substances (defined by 29 CFR 1910.120(a)) will be required to have passed an initial baseline medical examination, with follow-up medical exams thereafter, consistent with 29 CFR 1910.120(f). Medical evaluations will be performed by, or under the direction of, a physician board-certified in occupational medicine.

Additionally, personnel who may be required to perform work while wearing a respirator must receive medical clearance as required under CFR 1910.134(e), *Respiratory Protection*. Medical evaluations will be performed by, or under the direction of, a physician board-certified in occupational medicine. Results of medical evaluations are maintained by the HSM.

6.0 PERSONAL PROTECTIVE EQUIPMENT

6.1 Levels of Protection

Langan will provide PPE to Langan employees to protect them from the specific hazards they are likely to encounter on-site. Direct hired contractors will provide their employees with equivalent PPE to protect them from the specific hazards likely to be encountered on-site. Selection of the appropriate PPE must take into consideration: (1) identification of the hazards or suspected hazards; (2) potential exposure routes; and, (3) the performance of the PPE construction (materials and seams) in providing a barrier to these hazards.

Based on anticipated site conditions and the proposed work activities to be performed at the site, Level D protection will be used. The upgrading/downgrading of the level of protection will be

based on continuous air monitoring results as described in Section 6.0 (when applicable). The decision to modify standard PPE will be made by the site HSO or FTL after conferring with the PM. The levels of protection are described below.

Level D Protection (as needed)

- Safety glasses with side shields or chemical splash goggles
- Safety boots/shoes
- Coveralls (Tyvek® or equivalent)
- Hard hat
- Long sleeve work shirt and work pants
- Nitrile gloves
- Hearing protection
- Reflective safety vest

Level D Protection (Modified, as needed)

- Safety glasses with sideshields or chemical splash goggles
- Safety boots/shoes (toe-protected)
- Disposable chemical-resistant boot covers
- Coveralls (polycoated Tyvek or equivalent to be worn when contact with wet contaminated soil, groundwater, or non-aqueous phase liquids is anticipated)
- Hard hat
- Long sleeve work shirt and work pants
- Nitrile gloves
- Hearing protection (as needed)
- Personal floatation device (for work within 5 ft of the water)
- Reflective traffic vest

Level C Protection (as needed)

- Full or Half face, air-purifying respirator, with NIOSH approved HEPA filter
- Inner (latex) and outer (nitrile) chemical-resistant gloves
- Safety glasses with side shields or chemical splash goggles
- Chemical-resistant safety boots/shoes
- Hard hat
- Long sleeve work shirt and work pants
- Coveralls (Tyvek® or equivalent)
- Hearing protection (as needed)
- Reflective safety vest

The action levels used in determining the necessary levels of respiratory protection and upgrading to Level C are summarized in Table 4. The written Respiratory Protection Program is maintained by the HSM and is available if needed. The monitoring procedures and equipment are outlined in Section 6.0 (when applicable).

6.2 Respirator Fit-Test

All Langan employees who may be exposed to hazardous substances at the work site are in possession of a full or half face-piece, air-purifying respirator and have been successfully fit-tested within the past year. Fit-test records are maintained by the HSM.

6.3 Respirator Cartridge Change-Out Schedule

Respiratory protection is required to be worn when certain action levels (table 2) are reached. A respirator cartridge change-out schedule has been developed in order to comply with 29 CFR 1910.134. The respirator cartridge change-out schedule for this project is as follows:

- Cartridges shall be removed and disposed of at the end of each shift, when cartridges become wet or wearer experiences breakthrough, whichever occurs first.
- If the humidity exceeds 85%, then cartridges shall be removed and disposed of after 4 hours of use.

Respirators shall not be stored at the end of the shift with contaminated cartridges left on. Cartridges shall not be worn on the second day, no matter how short the time period was the previous day they were used.

7.0 AIR QUALITY MONITORING AND ACTIONS LEVELS

7.1 Monitoring During Site Operations

Atmospheric air monitoring results may be collected and used to provide data to determine when exclusion zones need to be established and when certain levels of personal protective equipment are required. For all instruments there are Site-specific action level criteria which are used in making field health and safety determinations. Other data, such as the visible presence of contamination or the steady state nature of air contaminant concentration, are also used in making field health and safety decisions. Therefore, the HSO may establish an exclusion zone or require a person to wear a respirator even though atmospheric air contaminant concentrations are below established HASP action levels.

During site work involving disturbance of petroleum-impacted or fill material, real time air monitoring may be conducted for volatile organic compounds (VOCs). A photoionization detector

(PID) and/or flame ionization detector (FID) will be used to monitor concentrations of VOCs at personnel breathing-zone height. Air monitoring will be the responsibility of the HSO or designee. Air monitoring may be conducted during intrusive activities associated with the completion of excavation, debris removal, and soil grading. All manufacturers' instructions for instrumentation and calibration will be available onsite.

Subcontractors' air monitoring plans must be equal or more stringent as the Langan plan.

An air monitoring calibration log is provided in Attachment D of this HASP.

7.1.1 Volatile Organic Compounds

Monitoring with a PID, such as a MiniRAE 2000 (10.6v) or equivalent may occur during intrusive work in the AOCs. Colorimetric Indicator Tubes for benzene may be used as backup for the PID, if measurements remain above background monitor every 2 hours. The HSO will monitor the employee breathing zone at least every 30 minutes, or whenever there is any indication that concentrations may have changed (odors, visible gases, etc.) since the last measurement. If VOC levels are observed above 5 ppm for longer than 5 minutes or if the site PPE is upgraded to Level C, the HSO will begin monitoring the site perimeter at a location downwind of the AOC every 30 minutes in addition to the employee breathing zone. Instrument action levels for monitored gases are provided in Table 4.

7.1.2 Metals

Based upon the site historical fill, there is a potential for the soils to contain PAHs and metals. During invasive procedures which have the potential for creating airborne dust, such as excavation of dry soils, a real time airborne dust monitor such as a Mini-Ram may be used to monitor for air particulates. The HSO will monitor the employee breathing zone at least every 30 minutes, or whenever there is any indication that concentrations may have changed (appearance of visible dust) since the last measurement. If dust levels are observed to be greater than 0.100 mg/m³ or visible dust is observed for longer than 15 minutes or if the site PPE is upgraded to Level C, the HSO will begin monitoring the site perimeter at a location downwind of the AOC every 30 minutes in addition to the employee breathing zone. Instrument action levels for dust monitoring are provided in Table 4.

7.2 Monitoring Equipment Calibration and Maintenance

Instrument calibration shall be documented and included in a dedicated safety and health logbook or on separate calibration pages of the field book. All instruments shall be calibrated before and

after each shift. Calibration checks may be used during the day to confirm instrument accuracy. Duplicate readings may be taken to confirm individual instrument response.

All instruments shall be operated in accordance with the manufacturers' specifications. Manufacturers' literature, including an operations manual for each piece of monitoring equipment will be maintained on site by the HSO for reference.

7.3 Determination of Background Levels

Background (BKD) levels for VOCs and dust will be established prior to intrusive activities within the AOC at an upwind location. A notation of BKD levels will be referenced in the daily monitoring log. BKD levels are a function of prevailing conditions. BKD levels will be taken in an appropriate upwind location as determined by the HSO.

Table 4 lists the instrument action levels.

8.0 COMMUNITY AIR MONITORING PROGRAM

Community air monitoring may be conducted in compliance with the NYSDOH Generic CAMP outlined below:

Monitoring for dust and odors will be conducted during all ground intrusive activities by the FTL. Continuous monitoring on the perimeter of the work zones for odor, VOCs, and dust may be required for all ground intrusive activities such as soil excavation and handling activities. The work zone is defined as the general area in which machinery is operating in support of remediation activities. A portable PID will be used to monitor the work zone and for periodic monitoring for VOCs during activities such as soil and groundwater sampling and soil excavation. The site perimeter will be monitored for fugitive dust emissions by visual observations as well as instrumentation measurements (if required). When required, particulate or dust will be monitored continuously with real-time field instrumentation that will meet, at a minimum, the performance standards from DER-10 Appendix 1B.

If VOC monitoring is required, the following actions will be taken based on VOC levels measured:

- If total VOC levels exceed 5 ppm above background for the 15-minute average at the perimeter, work activities will be temporarily halted and monitoring continued. If levels readily decrease (per instantaneous readings) below 5 ppm above background, work activities will resume with continued monitoring.
- If total VOC levels at the downwind perimeter of the hot zone persist at levels in excess of 5 ppm above background but less than 25 ppm, work activities will be halted, the

source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps work activities will resume provided that the total organic vapor level 200 feet downwind of the hot zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less – but in no case less than 20 feet, is below 5 ppm above background for the 15-minute average.

- If the total VOC level is above 25 ppm at the perimeter of the hot zone, activities will be shut down.

If dust monitoring with field instrumentation is required, the following actions will be taken based on instrumentation measurements:

- If the downwind particulate level is 100 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression must be employed. Work may continue with dust suppression techniques provided that downwind PM10 levels do not exceed $150 \mu\text{g}/\text{m}^3$ above the background level and provided that no visible dust is migrating from the work area.
- If, after implementation of dust suppression techniques, downwind PM10 levels are greater than $150 \mu\text{g}/\text{m}^3$ above the background level, work must be stopped and a re-evaluation of activities initiated. Work can resume provided that dust suppression measures and other controls are successful in reducing the downwind PM10 concentration to within $150 \mu\text{g}/\text{m}^3$ of the upwind level and in preventing visible dust migration.

8.1 Vapor Emission Response Plan

This section applies if VOC monitoring is required. If the ambient air concentration of organic vapors exceeds 5 ppm above background at the perimeter of the hot zone, boring and well installation, and excavation activities will be halted or odor controls will be employed, and monitoring continued. When work shut-down occurs, downwind air monitoring as directed by the HSO or FTL will be implemented to ensure that vapor emission does not impact the nearest residential or commercial structure at levels exceeding those specified in the Major Vapor Emission section.

If the organic vapor level decreases below 5 ppm above background, sampling and boring and well installation can resume, provided:

- The organic vapor level 200 feet downwind of the hot zone or half the distance to the nearest residential or commercial structure, whichever is less, is below 1 ppm over background, and

- More frequent intervals of monitoring, as directed by the HSO or FTL, are conducted.

8.2 Major Vapor Emission

This section applies if VOC monitoring is required. If any organic levels greater than 5 ppm over background are identified 200 feet downwind from the work site, or half the distance to the nearest residential or commercial property, whichever is less, all work activities must be halted or odor controls must be implemented.

If, following the cessation of the work activities, or as the result of an emergency, organic levels persist above 5 ppm above background 200 feet downwind or half the distance to the nearest residential or commercial property from the hot zone, then the air quality must be monitored within 20 feet of the perimeter of the nearest residential or commercial structure (20 Foot Zone).

If either of the following criteria is exceeded in the 20 Foot Zone, then the Major Vapor Emission Response Plan shall automatically be implemented.

- Sustained organic vapor levels approaching 5 ppm above background for a period of more than 30 minutes, or
- Organic vapor levels greater than 5 ppm above background for any time period.

8.3 Major Vapor Emission Response Plan

Upon activation, the following activities will be undertaken:

- The local police authorities will immediately be contacted by the HSO or FTL and advised of the situation;
- Frequent air monitoring will be conducted at 30-minute intervals within the 20 Foot Zone. If two successive readings below action levels are measured, air monitoring may be halted or modified by the HSO or FTL; and
- All Emergency contacts will go into effect as appropriate.

8.4 Dust Suppression Techniques

Preventative measures for dust generation may include wetting site fill and soil, construction of an engineered construction entrance with gravel pad, a truck wash area, covering soils with tarps, and limiting vehicle speeds to five miles per hour.

Work practices to minimize odors and vapors include limiting the time that the excavations remain open, minimizing stockpiling of contaminated-source soil, and minimizing the handling of contaminated material. Offending odor and organic vapor controls may include the application of

foam suppressants or tarps over the odor or VOC source areas. Foam suppressants may include biodegradable foams applied over the source material for short-term control of the odor and VOCs.

If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: direct load-out of soils to trucks for off-site disposal; use of chemical odorants in spray or misting systems; and, use of staff to monitor odors in surrounding neighborhoods.

Where odor nuisances have developed during remedial work and cannot be corrected, or where the release of nuisance odors cannot otherwise be avoided due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering excavation and handling areas under tented containment structures equipped with appropriate air venting/filtering systems.

9.0 WORK ZONES AND DECONTAMINATION

9.1 Site Control

Work zones are intended to control the potential spread of contamination throughout the site and to assure that only authorized individuals are permitted into potentially hazardous areas.

Any person working in an area where the potential for exposure to site contaminants exists will only be allowed access after providing the HSO with proper training and medical documentation.

Exclusion Zone (EZ) - All activities which may involve exposure to site contaminants, hazardous materials and/or conditions should be considered an EZ. Decontamination of field equipment will also be conducted in the Contaminant Reduction Zone (CRZ) which will be located on the perimeter of the EZ. The EZ and the CRZ will be clearly delineated by cones, tapes or other means. The HSO may establish more than one EZ where different levels of protection may be employed or different hazards exist. The size of the EZ shall be determined by the HSO allowing adequate space for the activity to be completed, field members and emergency equipment.

9.2 Contamination Zone

9.2.1 Personnel Decontamination Station

Personal hygiene, coupled with diligent decontamination, will significantly reduce the potential for exposure.

9.2.2 Minimization of Contact with Contaminants

During completion of all site activities, personnel should attempt to minimize the chance of contact with contaminated materials. This involves a conscientious effort to keep "clean" during site activities. All personnel should minimize kneeling, splash generation, and other physical contact with contamination as PPE is intended to minimize accidental contact. This may ultimately minimize the degree of decontamination required and the generation of waste materials from site operations.

Field procedures will be developed to control over spray and runoff and to ensure that unprotected personnel working nearby are not affected.

9.2.3 Personnel Decontamination Sequence

Decontamination may be performed by removing all PPE used in EZ and placing it in drums/trash cans at the CRZ. Baby wipes should be available for wiping hands and face. Drums/trash cans will be labeled by the field crews in accordance with all local, state, and federal requirements. Management plans for contaminated PPE, and tools are provided below.

9.2.4 Emergency Decontamination

If circumstances dictate that contaminated clothing cannot be readily removed, then remove gross contamination and wrap injured personnel with clean garments/blankets to avoid contaminating other personnel or transporting equipment. If the injured person can be moved, he/she will be decontaminated by site personnel as described above before emergency responders handle the victim. If the person cannot be moved because of the extent of the injury (a back or neck injury), provisions shall be made to ensure that emergency response personnel will be able to respond to the victim without being exposed to potentially hazardous atmospheric conditions. If the potential for inhalation hazards exist, such as with open excavation, this area will be covered with polyethylene sheeting to eliminate any potential inhalation hazards. All emergency personnel are to be immediately informed of the injured person's condition, potential contaminants, and provided with all pertinent data.

9.2.5 Hand-Held Equipment Decontamination

Hand-held equipment includes all monitoring instruments as stated earlier, samples, hand tools, and notebooks. The hand-held equipment is dropped at the first decontamination station to be decontaminated by one of the decontamination team members. These items must be decontaminated or discarded as waste prior to removal from the CRZ.

To aid in decontamination, monitoring instruments can be sealed in plastic bags or wrapped in polyethylene. This will also protect the instruments against contaminants. The instruments will be wiped clean using wipes or paper towels if contamination is visually evident. Sampling equipment, hand tools, etc. will be cleaned with non-phosphorous soap to remove any potentially contaminated soil, and rinsed with deionized water. All decontamination fluids will be containerized and stored on-site pending waste characterization sampling and appropriate off-site disposal.

9.2.6 Heavy Equipment Decontamination

All heavy equipment and vehicles arriving at the work site will be free from contamination from offsite sources. Any vehicles arriving to work that are suspected of being impacted will not be permitted on the work site. Potentially contaminated heavy equipment will not be permitted to leave the EZ unless it has been thoroughly decontaminated and visually inspected by the HSO or his designee.

9.3 Support Zone

The support zone or cold zone will include the remaining areas of the job site. Break areas and support facilities (include equipment storage and maintenance areas) will be located in this zone. No equipment or personnel will be permitted to enter the cold zone from the hot zone without passing through the decontamination station in the warm zone (if necessitated). Eating, smoking, and drinking will be allowed only in this area.

9.4 Communications

The following communications equipment will be utilized as appropriate.

- Telephones - A cellular telephone will be located with the HSO for communication with the HSM and emergency support services/facilities.
- Hand Signals - Hand signals shall be used by field teams, along with the buddy system. The entire field team shall know them before operations commence and their use covered during site-specific training. Typical hand signals are the following:

Hand Signal	Meaning
Hand gripping throat	Out of air; cannot breathe
Grip partners wrists or place both hands around waist	Leave immediately without debate
Hands on top of head	Need assistance
Thumbs up	OK; I'm alright; I understand
Thumbs down	No; negative

Hand Signal	Meaning
Simulated "stick" break with fists	Take a break; stop work

9.5 The Buddy System

When working in teams of two or more, workers will use the "buddy system" for all work activities to ensure that rapid assistance can be provided in the event of an emergency. This requires work groups to be organized such that workers can remain close together and maintain visual contact with one another. Workers using the "buddy system" have the following responsibilities:

- Provide his/her partner with assistance.
- Observe his/her partner for signs of chemical or heat exposure.
- Periodically check the integrity of his/her partner's PPE.
- Notify the HSO or other site personnel if emergency service is needed.

10.0 NEAREST MEDICAL ASSISTANCE

The address and telephone number of the nearest hospital:

Harlem Hospital Center
506 Lenox Avenue
New York, New York
212-939-1000

Map with directions to the hospital are shown in Figure 2. This information will either be posted prominently at the site or will be available to all personnel all of the time. Further, all field personnel, including the HSO & FTL, will know the directions to the hospital.

11.0 STANDING ORDERS/SAFE WORK PRACTICES

The standing orders, which consist of a description of safe work practices that must always be followed while on-site by Langan employees and contractors, are shown in Attachment A. The site HSO and FTL each have the responsibility for enforcing these practices. The standing orders will be posted prominently at the site, or are made available to all personnel at all times. Those who do not abide by these safe work practices will be removed from the site.

12.0 SITE SECURITY

No unauthorized personnel shall be permitted access to the work areas.

13.0 UNDERGROUND UTILITIES

As provided in Langan's Underground Utility Clearance Guidelines, the following safe work practices should be followed by Langan personnel and the contractor before and during subsurface work in accordance with federal, state and local regulations:

- Obtain available utility drawings from the property owner/client or operator.
- Provide utility drawings to the project team.
- In the field, mark the proposed area of subsurface disturbance (when possible).
- Ensure that the utility clearance system has been notified.
- Ensure that utilities are marked before beginning subsurface work.
- Discuss subsurface work locations with the owner/client and contractors.
- Obtain approval from the owner/client and operators for proposed subsurface work locations.
- Use safe digging procedures when applicable.
- Stay at least 10 feet from all equipment performing subsurface work.

14.0 SITE SAFETY INSPECTION

The Langan HSO or alternate will check the work area daily, at the beginning and end of each work shift or more frequently to ensure safe work conditions. The HSO or alternate must complete the Jobsite Safety Inspection Checklist, found in Attachment F. Any deficiencies shall be shared with the FTL, HSM and PM and will be discussed at the daily tailgate meeting.

15.0 HAND AND POWER TOOLS

All hand- and electric-power tools and similar equipment shall be maintained in a safe operating condition. All electric-power tools must be inspected before initial use. Damaged tools shall be removed immediately from service or repaired. Tools shall be used only for the purpose for which they were designed. All users must be properly trained in their safe operation.

16.0 EMERGENCY RESPONSE

16.1 General

This section establishes procedures and provides information for use during a project emergency. Emergencies happen unexpectedly and quickly, and require an immediate response; therefore, contingency planning and advanced training of staff is essential. Specific elements of emergency support procedures that are addressed in the following subsections include communications, local emergency support units, and preparation for medical emergencies, first aid for injuries incurred on site, record keeping, and emergency site evacuation procedures. In case of emergency, in addition to 911, call [Incident Intervention®](tel:1-888-479-7787) at 1-888-479-7787 to report their injuries. For all other communications, contact the Langan Incident Hotline at **(800) 9-LANGAN**

(800-952-6426) extension 4699 as soon as possible.

Should outside assistance be needed for accidents, fire, or release of hazardous substances, the emergency numbers will be available and posted at the site (Table 5) where a readily accessible telephone is made available for emergency use.

Also, in the event of an incident where a team member becomes exposed or suffers from an acute symptom from contact with site materials and has to be taken to a hospital, a short medical data sheet (Attachment T) for that individual will be made available to the attending physician. The medical data sheet will include the following:

- Name, address, home phone
- Age, height, weight
- Name of person to be notified in case of an accident
- Allergies
- Particular sensitivities
- Does he/she wear contact lenses
- Short checklist of previous illness
- Name of personal physician and phone
- Name of company physician and phone
- Prescription and non-prescription medications currently used.

A sample medical data sheet is included in Attachment T.

16.2 Responsibilities

16.2.1 Health and Safety Officer (HSO)

The HSO is responsible for ensuring that all personnel are evacuated safely and that machinery and processes are shut down or stabilized in the event of a stop work order or evacuation. The HSO is responsible for ensuring the HSM are notified of all incidents, all injuries, near misses, fires, spills, releases or equipment damage. The HSO is required to immediately notify the HSM of any fatalities or catastrophes (three or more workers injured and hospitalized) so that the HSM can notify OSHA within the required time frame.

16.2.2 Emergency Coordinator

The HSO or their designated alternate will serve as the Emergency Coordinator. The Emergency Coordinator is responsible for ensuring that all personnel are evacuated safely and that machinery and processes are shut down or stabilized in the event of a stop work order or evacuation. They are also responsible for ensuring the HSM are notified of all incidents, all injuries, near misses, fires, spills, releases or equipment damage. The Emergency Coordinator is required to

immediately notify the HSM of any fatalities or catastrophes (three or more workers injured and hospitalized).

The Emergency Coordinator shall locate emergency phone numbers and identify hospital routes prior to beginning work on the sites. The Emergency Coordinator shall make necessary arrangements to be prepared for any emergencies that could occur.

The Emergency Coordinator is responsible for implementing the Emergency Response Plan.

16.2.3 Site Personnel

Project site personnel are responsible for knowing the Emergency Response Plan and the procedures contained herein. Personnel are expected to notify the Emergency Coordinator of situations that could constitute a site emergency. Project site personnel, including all subcontractors will be trained in the Emergency Response Plan.

16.3 Communications

Once an emergency situation has been stabilized, or as soon as practically, the injured Langan personnel should contact [Incident Intervention@](mailto:Incident.Intervention@langan.com) at 1-888-479-7787 to report their injuries. For all other communications, contact the Langan Incident Hotline at **(800) 9-LANGAN** (800-952-6426) extension 4699 as soon as possible.

16.4 Local Emergency Support Units

In order to be able to deal with any emergency that might occur during investigative activities at the site, the Emergency Notification Numbers (Table 5) will be posted and provided to all personnel conducting work within the EZ.

Figure 2 shows the hospital route map. Outside emergency number 911 and local ambulance should be relied on for response to medical emergencies and transport to emergency rooms. Always contact first responders when there are serious or life threatening emergencies on the site. Project personnel are instructed not to drive injured personnel to the Hospital. In the event of an injury, provide first aid and keep the injured party calm and protected from the elements and treat for shock when necessary.

16.5 Pre-Emergency Planning

Langan will communicate directly with administrative personnel from the emergency room at the hospital in order to determine whether the hospital has the facilities and personnel needed to treat cases of trauma resulting from any of the contaminants expected to be found on the site. Instructions for finding the hospital will be posted conspicuously in the site office and in each site

vehicle.

16.6 Emergency Medical Treatment

The procedures and rules in this HASP are designed to prevent employee injury. However, should an injury occur, no matter how slight, it will be reported to the HSO immediately. First-aid equipment will be available on site at the following locations:

- First Aid Kit: Contractor Vehicles
- Emergency Eye Wash: Contractor Vehicles

During the site safety briefing, project personnel will be informed of the location of the first aid station(s) that has been set up. Some injuries, such as severe cuts and lacerations or burns, may require immediate treatment. Any first aid instructions that can be obtained from doctors or paramedics, before an emergency-response squad arrives at the site or before the injured person can be transported to the hospital, will be followed closely.

16.7 Personnel with current first aid and CPR certification will be identified.

Only in non-emergency situations may an injured person be transported to an urgent care facility. Due to hazards that may be present at the site and the conditions under which operations are conducted, it is possible that an emergency situation may develop. Emergency situations can be characterized as injury or acute chemical exposure to personnel, fire or explosion, environmental release, or hazardous weather conditions.

16.8 Emergency Site Evacuation Routes and Procedures

All project personnel will be instructed on proper emergency response procedures and locations of emergency telephone numbers during the initial site safety meeting. If an emergency occurs as a result of the site investigation activities, including but not limited to fire, explosion or significant release of toxic gas into the atmosphere, the Langan Project Manager will be verbally notified immediately. All heavy equipment will be shut down and all personnel will evacuate the work areas and assemble at the nearest intersection to be accounted for and to receive further instructions.

In the event that an emergency situation arises, the FTL will implement an immediate evacuation of all project personnel due to immediate or impending danger. The FTL will also immediately communicate with the contractor to coordinate any needed evacuation of the property.

The FTL or Site Supervisor will give necessary instructions until the Designated Incident Commander (IC) assumes control. After the emergency has been resolved, the FTL or Site Supervisor will coordinate with the IC and indicate when staff should resume their normal duties. If dangers are present for those at the designated assembly point, another designated location

of assembly will be established.

It will be the responsibility of the FTL or Site Supervisor to report a fire or emergency, assess the seriousness of the situation, and initiate emergency measures until the arrival of the local fire fighters or other first responders, should they be necessary. The FTL, working with emergency responders, may also order the closure of the Site for an indefinite period as long as it is deemed necessary.

Under no circumstances will incoming visitors be allowed to proceed to the area of concern, once an emergency evacuation has been implemented. Visitors or other persons present in the area of the emergency shall be instructed to evacuate the area. The FTL will ensure that access roads are not obstructed and will remain on-site to provide stand-by assistance upon arrival of emergency personnel.

If it is necessary to temporarily control traffic in the event of an emergency, those persons controlling traffic will wear proper reflection warning vests until the arrival of police or fire personnel.

16.8.1 Designated Assembly Locations

All personnel will evacuate the site and assemble at a designated assembly location. The assembly location will be designated by Langan personnel and discussed during each shift's pre-job safety briefing.

16.8.2 Accounting for Personnel

All contractor and subcontractor supervisors are responsible for the accounting of all personnel assembled at the designed assembly area. The Designated Incident Commander shall be notified if personnel are not found.

16.9 Fire Prevention and Protection

In the event of a fire or explosion, procedures will include immediately evacuating the site and notification of the Langan Project Manager of the investigation activities. Portable fire extinguishers will be provided at the work zone. The extinguishers located in the various locations should also be identified prior to the start of work. No personnel will fight a fire beyond the stage where it can be put out with a portable extinguisher (incipient stage).

16.9.1 Fire Prevention

Fires will be prevented by adhering to the following precautions:

- Good housekeeping and storage of materials.
- Storage of flammable liquids and gases away from oxidizers.
- Shutting off engines to refuel.
- Grounding and bonding metal containers during transfer of flammable liquids.
- Use of UL approved flammable storage cans.
- Fire extinguishers rated at least 10 pounds ABC located on all heavy equipment, in all trailers and near all hot work activities.

The person responsible for the control of fuel source hazards and the maintenance of fire prevention and/or control equipment is the HSO.

16.10 Significant Vapor Release

Based on the proposed tasks, the potential for a significant vapor release is low. However, if a release occurs, the following steps will be taken:

- Move all personnel to an upwind location. All non-essential personnel shall evacuate.
- Upgrade to Level C Respiratory Protection.
- Downwind perimeter locations shall be monitored for volatile organics.
- If the release poses a potential threat to human health or the environment in the community, the Emergency Coordinator shall notify the Langan Project Manager.
- Local emergency response coordinators will be notified.

16.11 Overt Chemical Exposure

The following are standard procedures to treat chemical exposures. Other, specific procedures detailed on the Material Safety Data Sheet (MSDS) will be followed, when necessary.

SKIN AND EYE: Use copious amounts of soap and water from eye-wash kits and portable hand wash stations.

CONTACT: Wash/rinse affected areas thoroughly, then provide appropriate medical attention. Skin shall also be rinsed for 15 minutes if contact with caustics, acids or hydrogen peroxide occurs. Affected items of clothing shall also be removed from contact with skin.

Providing wash water and soap will be the responsibility of each individual contractor or subcontractor on-site.

16.12 Decontamination during Medical Emergencies

If emergency life-saving first aid and/or medical treatment is required, normal decontamination procedures may need to be abbreviated or omitted. The HSO or designee will accompany contaminated victims to the medical facility to advise on matters involving decontamination when

necessary. The outer garments can be removed if they do not cause delays, interfere with treatment or aggravate the problem. Respiratory equipment must always be removed. Protective clothing can be cut away. If the outer contaminated garments cannot be safely removed on site, a plastic barrier placed between the injured individual and clean surfaces should be used to help prevent contamination of the inside of ambulances and/or medical personnel. Outer garments may then be removed at the medical facility. No attempt will be made to wash or rinse the victim if his/her injuries are life threatening, unless it is known that the individual has been contaminated with an extremely toxic or corrosive material which could also cause severe injury or loss of life to emergency response personnel. For minor medical problems or injuries, the normal decontamination procedures will be followed.

16.13 Adverse Weather Conditions

In the event of adverse weather conditions, the HSO will determine if work will continue without potentially risking the safety of all field workers. Some of the items to be considered prior to determining if work should continue are:

- Potential for heat stress and heat-related injuries.
- Potential for cold stress and cold-related injuries.
- Treacherous weather-related working conditions (hail, rain, snow, ice, high winds).
- Limited visibility (fog).
- Potential for electrical storms.
- Earthquakes.
- Other major incidents.

Site activities will be limited to daylight hours, or when suitable artificial light is provided, and acceptable weather conditions prevail. The HSO will determine the need to cease field operations or observe daily weather reports and evacuate, if necessary, in case of severe inclement weather conditions.

16.14 Spill Control and Response

All small spills/environmental releases shall be contained as close to the source as possible. Whenever possible, the MSDS will be consulted to assist in determining proper waste characterization and the best means of containment and cleanup. For small spills, sorbent materials such as sand, sawdust or commercial sorbents should be placed directly on the substance to contain the spill and aid recovery. Any acid spills should be diluted or neutralized carefully prior to attempting recovery. Berms of earthen or sorbent materials can be used to contain the leading edge of the spills. All spill containment materials will be properly disposed. An exclusion zone of 50 to 100 feet around the spill area should be established depending on the size of the spill.

All contractor vehicles shall have spill kits on them with enough material to contain and absorb the worst-case spill from that vehicle. All vehicles and equipment shall be inspected prior to be admitted on site. Any vehicle or piece of equipment that develops a leak will be taken out of service and removed from the job site.

The following seven steps shall be taken by the Emergency Coordinator:

1. Determine the nature, identity and amounts of major spills.
2. Make sure all unnecessary persons are removed from the spill area.
3. Notify the HSO immediately.
4. Use proper PPE in consultation with the HSO.
5. If a flammable liquid, gas or vapor is involved, remove all ignition sources and use non-sparking and/or explosion-proof equipment to contain or clean up the spill (diesel-only vehicles, air-operated pumps, etc.)
6. If possible, try to stop the leak with appropriate material.
7. Remove all surrounding materials that can react or compound with the spill.

In addition to the spill control and response procedures described in this HASP, Langan personnel will coordinate with the designated project manager relative to spill response and control actions. Notification to the Project Manager must be immediate and, to the extent possible, include the following information:

- Time and location of the spill.
- Type and nature of the material spilled.
- Amount spilled.
- Whether the spill has affected or has a potential to affect a waterway or sewer.
- A brief description of affected areas/equipment.
- Whether the spill has been contained.
- Expected time of cleanup completion. If spill cleanup cannot be handled by Langan's on-site personnel alone, such fact must be conveyed to the Project Manager immediately.

Langan shall not make any notification of spills to outside agencies. The client will notify regulatory agencies as per their reporting procedures.

16.15 Emergency Equipment

The following minimum emergency equipment shall be kept and maintained on site:

- Industrial first aid kit.
- Fire extinguishers (one per site).

16.16 Restoration and Salvage

After an emergency, prompt restoration of utilities, fire protection equipment, medical supplies and other equipment will reduce the possibility of further losses. Some of the items that may need to be addressed are:

- Refilling fire extinguishers.
- Refilling medical supplies.
- Recharging eyewashes and/or showers.
- Replenishing spill control supplies.

16.17 Documentation

Immediately following an incident or near miss, unless emergency medical treatment is required, either the employee or a coworker must contact the Langan Incident/Injury Hotline at 1-(800)-9-LANGAN (ext. #4699) and the client representative to report the incident or near miss. For emergencies involving personnel injury and/or exposure, the HSO and affected employee will complete and submit an Employee Exposure/Injury Incident Report (Attachment C) to the Langan Corporate Health and Safety Manager as soon as possible following the incident.

17.0 SPECIAL CONDITIONS

This guideline contains information and requirements for special conditions that may not be routinely encountered.

17.1 Scope

The guideline applies to the specific projects identified within this document. Additional provisions will be addressed in each Site-Specific HEALTH AND SAFETY PLAN (HASp), as needed.

17.2 Responsibilities

Site Personnel - All site personnel must be alert to safety hazards on work sites and take action to minimize such hazards. Personnel must utilize the buddy system, watch for inappropriate behavior, and be alert to changes in site conditions.

Health and Safety Officer (HSO) - The HSO is responsible for considering these procedures in the development of site specific HASPs. The HSO shall schedule frequent "tail gate" safety briefings to enhance safety awareness and discuss potential problems.

17.3 Procedures

The procedures outlined below shall be followed when such conditions are encountered.

17.3.1 Ladders

Langan safety procedures shall be used to ensure employee safety when using ladders in the office or work sites. All ladders shall be coated or repaired to prevent injury to the employee from punctures or lacerations and to prevent snagging or clothing. Any wood ladders used must have an opaque covering except for identification or warning labels, which may be placed on one face only of a side rail.

17.3.1.1 Ladder Use

Employees shall only use ladders for the purposes, which they were designed and shall not be used as scaffolding. Ladders will be maintained and inspected prior to use for slip hazards including oil and grease. Employees shall use ladders only on stable and level surfaces unless the ladder is secured to prevent possible displacement. Ladders should not be used on slippery surfaces unless secured or provided with slip resistant feet to prevent accidental displacement. Ladders should not be used in locations where they could be displaced by workplace activities or traffic. Ladder rungs, cleats and steps shall be parallel, level and uniformly spaced when the ladder is in the use position.

Employees should not be carrying anything including equipment that could cause injury if there was a fall while utilizing the ladder. The top and bottom of the ladder area must remain clear while in use. When ascending and descending the ladder, employees must face the ladder.

Ladders shall not be loaded beyond the maximum intended load for which they were built or the manufacturer's rated capacity.

17.3.1.2 Portable Ladders

Rungs, cleats and steps for portable ladders and fixed ladders shall be spaced not less than 10 inches apart, nor more than 14 inches apart, as measured between center lines of the rungs, cleats and steps. When used to access an upper landing surface, the ladder side rails must extend at least three feet above the upper landing surface to which the ladder is used to gain access. If this is not possible, due to the ladders length, then the top of the ladder shall be secured at its top to a rigid support.

17.3.1.3 Step Stools

Rungs, cleats and steps of step stools shall not be less than 8 inches apart, nor more than 12 inches apart, as measured between center lines of the rungs, cleats and steps.

17.3.1.4 Extension Ladders

Rungs, cleats and steps of the base section of extension trestle ladders shall be spaced not less than 8 inches apart, nor more than 18 inches apart, as measured between center lines of the rungs, cleats and steps. The rung spacing on the extension section of the extension trestle ladder shall not be less than 6 inches nor more than 12 inches, as measured between center lines of the rungs, cleats and steps. Ladders shall be used at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately one-quarter of the working length of the ladder (the distance along the ladder between the foot and the top support).

17.3.1.5 Inspection

Ladders will be inspected for visible defects periodically, prior to utilization or after any occurrence that could have negatively affected the ladder. Portable ladders with defects including broken or missing rungs, cleats, or steps, broken or split rails, corroded components or other faulty or defective components shall not be used. The ladder will be immediately marked as defective, tagged as "Do Not Use" or blocked from being used and removed from service until repaired.

17.3.2 First Aid/Cardiopulmonary Resuscitation (CPR)

Langan field and office personnel will be encouraged to be trained in First Aid and Cardiopulmonary Resuscitation (CPR). Training will be provided free of charge by Langan to all employees. Employees will receive a training certificate that will be kept on file with the Health & Safety Coordinator (HSC). Training and certification will be provided by a credited provider such as American Red Cross or equivalent.

17.3.2.1 Emergency Procedures

Prior to work at sites the Langan employees certified in first aid and CPR will be identified in the site specific HASP. Langan will endeavor to have at least one employee at a job site trained and able to render first aid and CPR. The site specific HASP will contain first aid information on both potential chemical and physical hazards. Emergency procedures to be followed are in case of injury or illnesses are provided in the HASP. The HASP will include emergency contact information including local police and fire departments, hospital emergency rooms, ambulance services, on-site medical personnel and physicians. The HASP will also include directions and contact information to the nearest emergency facility in case immediate medical attention is required. The emergency contact information will be conspicuously posted at the worksite.

Employees that are injured and require immediate medical attention shall call either 911 or the local posted emergency contacts. Employees should use ambulatory services to transport injured workers to the nearest facility for emergency medical care. In areas where 911 is not available, the telephone numbers of the physicians, hospitals, or ambulances shall be conspicuously posted.

17.3.2.2 First Aid Supplies

First aid supplies are readily available to all Langan employees when required. First aid kits are located in each Langan office. Portable first aid kits are available for employees to use at work sites. First aid kits should consist of items needed to treat employees for potential chemical and physical injuries. At a minimum, first aid kits should contain items to allow basic first aid to be rendered. Where the eyes or body of an employee may be exposed to corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use including eye wash.

First aid kits will be weatherproof with individual sealed packages of each item. All portable first aid kits shall be inspected by Langan employees before and after use to ensure all used items are replaced. When out in the field, employees shall check first aid kits weekly to ensure used items are replaced.

17.3.3 Hydrogen Sulfide

Langan employees with the potential to be exposed to hydrogen sulfide while at work sites shall have training in hydrogen sulfide awareness. The training will include identification of areas where employees could be exposed to hydrogen sulfide, health effects, permissible exposure limits, first aid procedures and personnel protective equipment. Langan employees could be exposed to hydrogen sulfide while at job sites including petroleum refineries, hazardous waste treatment, storage and disposal facilities, uncontrolled hazardous waste sites and remediation projects.

17.3.3.1 Characteristics

Hydrogen sulfide is a colorless gas with a strong odor of rotten eggs that is soluble in water. Hydrogen sulfide is used to test and make other chemicals. It is also found as a by-product of chemical reactions, such as in sewer treatment. It is a highly flammable gas and a dangerous fire hazard. Poisonous gases are produced in fires including sulfur oxides. Hydrogen sulfide is not listed as a carcinogen.

17.3.3.2 Health Effects

Hydrogen Sulfide can affect employees if inhaled or through contact with skin or eyes. Acute (or short term) health effects of hydrogen sulfide exposure include irritation of the nose and throat, dizziness, confusion, headache and trouble sleeping. Inhalation of hydrogen sulfide can irritate the lungs causing coughing and/or shortness of breath. Higher levels of exposure can cause build-up of fluid in the lungs (pulmonary edema), a medical emergency, with severe shortness of breath.

Chronic (or long term) health effects of low levels of exposure to hydrogen sulfide can cause pain and redness of the eyes with blurred vision. Repeated exposure may cause bronchitis with cough, phlegm and shortness of breath.

17.3.3.3 Protective Clothing and Equipment

Respirators are required for those operations in which employees will be exposed to hydrogen sulfide above OSHA permissible exposure level. The maximum OSHA permissible exposure limit (PEL) for hydrogen sulfide is 20 parts of hydrogen sulfide vapor per million parts of air (20 ppm) for an 8-hour workday and the maximum short-term exposure limit (STEL) is 10 ppm for any 10-minute period.

Where employees are exposed to levels up to 100 parts of hydrogen sulfide vapor per million parts of air (100 ppm), the following types of respiratory protection are allowed:

- Any powered, air purifying respirator with cartridge(s);
- Any air purifying, full-facepiece respirator (gas mask) with a chin style, front- or back-mounted canister;
- Any supplied air system with escape self-contained breathing apparatus, if applicable; and,
- Any self-contained breathing apparatus with a full facepiece.

Respirators used by employees must have joint Mine Safety and Health Administration and the National Institute for Occupational Safety and Health (NIOSH) seal of approval. Cartridges or canisters must be replaced before the end of their service life, or the end of the shift, whichever occurs first. Langan employees that have the potential to be exposed to hydrogen sulfide will be trained in the proper use of respirators. Respirator training is discussed under– Langan’s Respiratory Protection Program.

Employees with potential exposure to hydrogen sulfide, or when required by the client, will wear a portable hydrogen sulfide gas detector. The detector should have an audible, visual and vibrating alarm. The detector may also provide detection for carbon monoxide, sulfur dioxide and oxygen deficient atmospheres. The hydrogen sulfide monitor will, at a minimum, be calibrated

to detect hydrogen sulfide at a level of 20 parts of hydrogen sulfide vapor per million parts of air (20 ppm). Many portable gas detectors will have factory defaults with a low level alarm at 10 ppm and a high level alarm at 15 ppm. Langan employees shall consult clients to determine if any site specific threshold levels exist.

If the hydrogen sulfide gas detector sounds and employees are not wearing appropriate respiratory protection, employees must immediately vacate the area and meet at the assigned emergency location. Langan employees may not re- enter the site without proper respiratory protection and approval from the client or property owner, if needed.

Employees shall wear PPE to prevent eye and skin contact with hydrogen sulfide. Employees must wear appropriate protective clothing including boots, gloves, sleeves and aprons, over any parts of their body that could be exposed to hydrogen sulfide. Non-vented, impact resistant goggles should be worn when working with or exposed to hydrogen sulfide.

17.3.3.4 *Emergency and First Aid Procedures*

Eye and Face Exposure

If hydrogen sulfide comes in contact with eyes, it should be washed out immediately with large amounts of water for 30 minutes, occasionally lifting the lower and upper eye lids. Seek medical attention immediately.

Skin Exposure

If hydrogen sulfide contaminates clothing or skin, remove the contaminated clothing immediately and wash the exposed skin with large amounts of water and soap. Seek medical attention immediately. Contaminated clothing should either be disposed of or washed before wearing again.

Breathing

If a Langan employee or other personnel breathe in hydrogen sulfide, immediately get the exposed person to fresh air. If breathing has stopped, artificial respiration should be started. Call for medical assistance or a doctor as soon as possible.

Safety Precautions

Hydrogen sulfide is a highly flammable gas and a dangerous fire hazard. Containers of hydrogen sulfide may explode in a fire situation. Poisonous gases are produced during fires.

Langan employees should contact property owners and operators prior to conducting work onsite to be aware of any site specific contingency plans, identify where hydrogen sulfide is used at the facility and be informed about additional safety rules or procedures.

19.3.4 Fire Protection/Extinguishers

Langan field personnel that have been provided with portable fire extinguishers for use at worksites will be trained to familiarize employees with general principles of fire extinguisher use and hazards associated with the incipient stage of firefighting. Training will be provided prior to initial assignment for field work and annually thereafter.

Portable fire extinguishers shall be visually inspected monthly and subjected to an annual maintenance check. Langan shall retain records of the annual maintenance date.

17.3.5 Overhead lines

When field work is performed near overhead lines, the lines shall be deenergized and grounded, or other protective measures shall be provided before the work shall commence. If overhead lines are to be deenergized, arrangements shall be made with the client, property owner or organization that operates or controls the electric circuits involved to deenergize and ground them. If protective measures, such as guarding, isolating, or insulating, are provided, these precautions shall prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools, or equipment.

When unqualified Langan personnel are working in an elevated position near overhead lines, the location shall be such that the person and the longest conductive object they may contact cannot come closer to any unguarded, energized overhead line than the following distances:

1. For voltages to ground 50kV or below - 10 feet; and
2. For voltages to ground over 50kV - 10 feet, plus 4 inches for every 10kV over 50kV.

As previously indicated, Langan does not retain qualified employees to perform work on energized equipment.

17.3.5.1 Vehicle and Equipment Clearance

Any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines shall be operated so that a clearance of 10 feet is maintained. If the voltage of the overhead lines is higher than 50kV, the clearance shall be increased 4 inches for every 10kV over that voltage.

If any of the following discussed conditions occur, the clearance may be reduced.

- If the vehicle is in transit with its structure lowered, the clearance may be reduced to 4 ft. If the voltage is higher than 50kV, the clearance shall be increased 4 in. for every 10 kV over that voltage.
- If insulating barriers are installed to prevent contact with the lines, and if the barriers are rated for the voltage of the line being guarded and are not a part of or an attachment to the vehicle or its raised structure, the clearance may be reduced to a distance within the designed working dimensions of the insulating barrier.

Employees standing on the ground may not contact the vehicle or mechanical equipment or any of its attachments, unless the employee is using protective equipment rated for the voltage; or the equipment is located so that no uninsulated part of its structure (that portion of the structure that provides a conductive path to employees on the ground) can come closer to the overhead line than permitted.

If any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines is intentionally grounded, employees working on the ground near the point of grounding may not stand at the grounding location whenever there is a possibility of overhead line contact. Additional precautions, such as the use of barricades or insulation, shall be taken to protect employees from hazardous ground potentials, depending on earth resistivity and fault currents, which can develop within the first few feet or more outward from the grounding point.

17.3.6 Trade Secret

Langan employees could potentially be provided trade secret information by the client or property owner when site specific information is provided about highly hazardous chemicals. Trade secret means any confidential formula, pattern, process, device, information or compilation of information that is used in an employer's business, and that gives the employer an opportunity to obtain an advantage over competitors who do not know or use it. Langan employees understand that this information should be kept confident and if required, may enter into a confidentially agreement with the client.

17.3.7 Bloodborne Pathogens

Langan employees that can reasonably anticipate exposure to blood or other potentially infectious material while at work sites shall have training in bloodborne pathogens. Applicable employees would include those trained in first aid and serving a designated role as an emergency medical care provider. Bloodborne pathogens are pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, hepatitis B virus and human immunodeficiency virus.

17.3.7.1 *Training*

Langan employees with potential occupational exposure to blood or other potentially infectious material must participate in a training program. Training must be conducted prior to initial assignment where there would be potential for exposure and annually thereafter within one year of previous training. The training program will be provided to Langan employees at no cost to them and during working hours.

Langan will ensure the training program shall consist of the following:

- An accessible copy of the regulatory text of 29 CFR 1910.1030 and an explanation of its contents;
- A general explanation of the epidemiology and symptoms of bloodborne diseases;
- An explanation of the modes of transmission of bloodborne pathogens;
- An explanation of Langan's exposure control plan and the means by which the employee can obtain a copy of the written plan;
- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials;
- An explanation of the use and limitations of personal protective
 - equipment (PPE) to prevent and reduce exposure;
 - Information on the types, proper use, location, removal, handling and disposal of PPE;
 - An explanation of the basis for selection of PPE;
 - Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge;
 - Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials;
 - An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that will be made available;
 - Information on the post-exposure evaluation and follow-up that the
 - employer is required to provide for the employee following an exposure incident;
 - An explanation of the signs and labels and/or color coding required by paragraph 29 CFR 1910.1030(g)(1); and
 - An opportunity for interactive questions and answers with the person conducting the training session.

Langan will develop and implement a written Exposure Control Plan, which will be designed to eliminate or minimize employee exposure to bloodborne pathogens. The Exposure Control Plan will contain the following elements:

- An exposure determination for employees;
- The schedule and method of implementation for Methods of Compliance (29 CFR 191.1030(d)), Hepatitis B Vaccination and Post-Exposure Evaluation and Follow-up (29 CFR 1910.1030(f)), Communication of Hazards to Employees (29 CFR 1910.1030(g)) and (h) Recordkeeping (29 CFR 1910.1030(h));
- The procedure for the evaluation of circumstances surrounding exposure incidents;
- Ensure a copy of the Exposure Control Plan will be accessible to employees; and,
- The Exposure Control Plan shall be reviewed and updated at least annually.

Langan employees with occupational exposure to bloodborne pathogens include any employees trained in first aid that would be expected to provide emergency medical care. This determination is made without regards to the use of PPE, which could eliminate or minimize exposure.

Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for bloodborne pathogens. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body fluids shall be considered potentially infectious materials.

Work practice controls shall be used to eliminate or minimize employee exposure, if applicable. Since Langan employees will have occupational exposure only during rendering of first aid, personnel protective equipment will be utilized to reduce or minimize exposure. PPE that could be available to Langan personnel when administering first aid includes safety glasses, gloves, and Tyvek suits or sleeves. PPE and first aid kits will be provided to employees at no cost to them.

Langan employees that render first aid in office areas will have access to hand washing facilities or restrooms. For first aid rendered at field locations, first aid kits will contain an appropriate antiseptic hand cleanser and clean cloth/paper towels or antiseptic towelettes. After using antiseptic hand cleansers or towelettes, employees shall wash their hands with soap and running water as soon as feasible.

After administering first aid, potentially infectious materials, including towels, personnel protective equipment, clothes and bandages, shall be placed in a container, which prevents leakage during collection, handling, processing, storage, transport, or shipping. All PPE will be disposed of after use. Any equipment or working surfaces which was been exposed to blood or potentially infectious materials due to an injury, will be decontaminated prior to reuse.

Langan will make available the hepatitis B vaccine and vaccination series to all employees who have occupational exposure, and post-exposure evaluation and follow-up to all employees who

have had an exposure incident. These services will be available to the employee at no cost to them through a medical provider.

17.3.7.2 Recordkeeping

Langan will maintain training and medical records for each employee with occupational exposure to blood or potentially infectious materials. Medical and training records will be maintained by Langan's H&S Department.

Training records will include the following:

- Dates of the training sessions;
- Contents or a summary of the training sessions;
- Names and qualifications of persons conducting the training; and
- Names and job titles of all persons attending the training sessions.

Training records shall be maintained for 3 years from the date on which the training occurred. Medical records will be will be preserved and maintained for the duration of employment plus 30 years.

All records will be made available upon request to employees, the Assistant Secretary of Labor for Occupational Safety and Health, and Director of National Institute for Occupational Safety and Health Director of OSHA for examination and copying. Medical records must have written consent from employee before releasing.

If Langan ceases to do business, all records shall be transferred to the successor employer. The successor employer shall receive and maintain these records.

If there will not be a successor, Langan will notify current employees of their rights to access records at least three months prior to the cessation of business.

18.0 RECORDKEEPING

The following is a summary of required health and safety logs, reports and recordkeeping.

18.1 Field Change Authorization Request

Any changes to the work to be performed that is not included in the HASP will require an addendum that is approved by the Langan project manager and Langan HSM to be prepared. Approved changes will be reviewed with all field personnel at a safety briefing.

18.2 Medical and Training Records

Copies or verification of training (40-hour, 8-hour, supervisor, site-specific training, documentation of three-day OJT, and respirator fit-test records) and medical clearance for site work and respirator use will be maintained in the office and available upon request. Records for all subcontractor employees must also be available upon request. All employee medical records will be maintained by the HSM.

18.3 Onsite Log

A log of personnel on site each day will be kept by the HSO or designee.

18.4 Daily Safety Meetings (“Tailgate Talks”)

Completed safety briefing forms will be maintained by the HSO.

18.5 Exposure Records

All personal monitoring results, laboratory reports, calculations and air sampling data sheets are part of an employee exposure record. These records will be maintained by the HSO during site work. At the end of the project they will be maintained according to 29 CFR 1910.1020.

18.6 Hazard Communication Program/MSDS-SDS

Material safety data sheets (MSDS) or Safety Data Sheets (SDS) have been obtained for applicable substances and are included in this HASP (Attachment D). Langan’s written hazard communication program, in compliance with 29 CFR 1910.1200, is maintained by the HSM.

18.7 Documentation

Immediately following an incident or near miss, unless emergency medical treatment is required, either the employee or a coworker must contact the Langan incident/injury hotline at 1-800-952-6426, extension 4699 and the Project Manager to report the incident or near miss. The Project Manager will contact the client or client representative. A written report must be completed and submitted HSM within 24 hours of the incident. For emergencies involving personnel injury and/or exposure, employee will complete and submit the Langan incident/injury report to the Langan corporate health and safety manager as soon as possible following the incident. Accidents will be investigated in-depth to identify all causes and to recommend hazard control measures.

18.7.1 Accident and Injury Report Forms

18.7.1.1 Accident/Incident Report

All injuries, no matter how slight, shall be reported to the FTL and the PM immediately. The

accident/incident report forms, attached in Attachment U and Attachment V will be filled out on all accidents by the applicable contractor supervision personnel, the FTL, or the HSO. Copies of all accident/incident reports shall be kept on-site and available for review. Project personnel will be instructed on the location of the first aid station, hospital, and doctor and ambulance service near the job. The emergency telephone numbers will be conspicuously posted in site vehicles near the work zone. First aid supplies will be centrally located and conspicuously posted between restricted and non-restricted areas to be readily accessible to all on the site.

18.7.1.2 First Aid Treatment Record

The forms in will be used for recording all non-lost time injuries treated by the project first-aid attendant, the local physician or hospital will be entered in detail on this record. "Minor" treatment of scratches, cuts, etc. will receive the same recording attention as treatment of more severe injuries.

18.7.1.3 OSHA Form 300

An OSHA Form 300 will be kept at the Langan Corporate Office in Parsippany, New Jersey. All recordable injuries or illnesses will be recorded on this form. Subcontractor employers must also meet the requirements of maintaining an OSHA 300 form. The Incident Report form used to capture the details of work-related injuries/illnesses meets the requirements of the OSHA Form 301 (supplemental record) and must be maintained with the OSHA Form 300 for all recordable injuries or illnesses. Forms for recording OSHA work-related injuries and illnesses are included in Attachment U and Attachment V.

19.0 CONFINED SPACE ENTRY

Confined spaces are not anticipated at the Site during planned construction activities. If confined spaces are identified, the contractor must implement their own confined space program that all applicable federal, state and local regulations. Confined spaces **will not** be entered by Langan personnel.

20.0 HASP ACKNOWLEDGEMENT FORM

All Langan personnel and contractors will sign this HASP Compliance Agreement indicating that they have become familiar with this HASP and that they understand it and agree to abide by it.

TABLES

**TABLE 1
TASK HAZARD ANALYSES**

Task	Hazard	Description	Control Measures	First Aid
1.3.1 – 1.3.20	Contaminated Soil or Groundwater- Dermal Contact	Contaminated water spills on skin, splashes in eyes; contact with contaminated soil/fill during construction activities or sampling.	Wear proper PPE; follow safe practices, maintain safe distance from construction activities	See Table 2, seek medical attention as required
1.3.1 – 1.3.20	Lacerations, abrasions, punctures	Cutting bailer twine, pump tubing, acetate liners, etc. with knife; cuts from sharp site objects or previously cut piles, tanks, etc.; Using tools in tight spaces	Wear proper PPE; follow safe practices	Clean wound, apply pressure and/or bandages; seek medical attention as required.
1.3.1 – 1.3.20	Contaminated Media Inhalation	Opening drums, tanks, wells; vapors for non-aqueous phase liquids or other contaminated site media; dust inhalation during excavation; vapor accumulation in excavation	Follow air monitoring plan; have quick access to respirator, do not move or open unlabeled drums found at the site, maintain safe distance from construction activities	See Table 2, seek medical attention as required
1.3.1 – 1.3.20	Lifting	Improper lifting/carrying of equipment and materials causing strains	Follow safe lifting techniques; Langan employees are not to carry contractor equipment or materials	Rest, ice, compression, elevation; seek medical attention as required
1.3.1 – 1.3.20	Slips, trips, and falls	Slips, trips and falls due to uneven surfaces, cords, steep slopes, debris and equipment in work areas	Good housekeeping at site; constant awareness and focus on the task; avoid climbing on stockpiles; maintain safe distance from construction activities and excavations; avoid elevated areas over six feet unless fully accredited in fall protection and wearing an approved fall protection safety apparatus	Rest, ice, compression, elevation; seek medical attention as required
1.3.1 – 1.3.20	Noise	Excavation equipment, hand tools, drilling equipment.	Wear hearing protection; maintain safe distance from construction activities	Seek medical attention as required
1.3.1 – 1.3.20	Falling objects	Soil material, tools, etc. dropping from drill rigs, front-end loaders, etc.	Hard hats to be worn at all times while in work zones; maintain safe distance from construction activities and excavations	Seek medical attention as required
1.3.1 – 1.3.20	Underground/ overhead utilities	Excavation equipment, drill rig auger makes contact with underground object; boom touches overhead utility	"One Call" before dig; follow safe practices; confirm utility locations with contractor; wear proper PPE; maintain safe distance from construction activities and excavations	Seek medical attention as required
1.3.1 – 1.3.20	Insects (bees, wasps, hornet, mosquitoes, and spider)	Sings, bites	Insect Repellent; wear proper protective clothing (work boots, socks and light colored pants);field personnel who may have insect allergies (e.g., bee sting) should provide this information to the HSO or FSO prior to commencing work, and will have allergy medication on site.	Seek medical attention as required
1.3.1 – 1.3.20	Vehicle traffic / Heavy Equipment Operation	Vehicles unable to see workers on site, operation of heavy equipment in tight spaces, equipment failure, malfunctioning alarms	Wear proper PPE, especially visibility vest; use a buddy system to look for traffic; rope off area of work with cones and caution tape or devices at points of hazard, maintain safe distance from construction activities and equipment	Seek medical attention as required

**TABLE 2
CONTAMINANT HAZARDS OF CONCERN**

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	1,1'-Biphenyl Biphenyl Phenyl benzene Diphenyl	92-52-4	None	1 mg/m ³ 100 mg/m ³	Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, throat; headache, nausea, lassitude (weakness, exhaustion), numb limbs; liver damage	Eye: Irrigate immediately Skin: Water flush immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	1,2-Dichloroethane Ethylene dichloride 1,2-DCA DCE[1] Ethane dichloride Dutch liquid, Dutch oil Freon 150	107-06-2	PID	50 ppm 50 ppm	Groundwater Soil Vapor	inhalation, ingestion, skin absorption, skin and/or eye contact	irritation to the eyes, skin, mucous membrane	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	1,2,3-Trichloropropane Allyl trichloride Glycerol trichlorohydrin Glyceryl trichlorohydrin Trichlorohydrin	96-18-4	PID	50 ppm 100 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation eyes, nose, throat; central nervous system depression; In Animals: liver, kidney injury; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	1,2,4,5-Tetramethylbenzene	95-93-2	NA	None None	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, throat, respiratory system; bronchitis; hypochromic anemia; headache, drowsiness, lassitude (weakness, exhaustion), dizziness, nausea, incoordination; vomiting, confusion; chemical pneumonitis (aspiration liquid)	Eye: Irrigate immediately Skin: Soap flush immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	1,2,4-Trimethylbenzene	95-63-6	PID	None None	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, throat, respiratory system; bronchitis; hypochromic anemia; headache, drowsiness, lassitude (weakness, exhaustion), dizziness, nausea, incoordination; vomiting, confusion; chemical pneumonitis (aspiration liquid)	Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	cis-1,2-Dichloroethene	156-59-2	PID	200 ppm 1000 ppm	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, respiratory system; central nervous system depression	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	1,3,5-Trimethylbenzene Mesitylene sym-Trimethylbenzene	108-67-8	PID	None None	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, throat, respiratory system; bronchitis; hypochromic anemia; headache, drowsiness, lassitude (weakness, exhaustion), dizziness, nausea, incoordination; vomiting, confusion; chemical pneumonitis (aspiration liquid)	Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	1,3-Butadiene Biethylene Bivinyll Butadiene Divinyll Erythrene Vinylethylene	106-99-0	PID	1 ppm 2000 ppm	Vapor	inhalation, skin and/or eye contact (liquid)	irritation to the eyes, nose, throat; drowsiness, dizziness; liquid: frostbite; teratogenic, reproductive effects; [potential occupational carcinogen]	Eye: Frostbite Skin: Frostbite Breathing: Respiratory support
1.3.1 – 1.3.20	1,4-Dioxane 1,4-Dioxacyclohexane [1,4]Dioxane p-Dioxane [6]-crown-2 Diethylene dioxide Diethylene ether Dioxan	123-91-1	PID	100 ppm 500 ppm	Groundwater Soil Vapor	Inhalation, ingestion, skin and/or eye contact	Irritant to eyes, skin, mucous membranes and respiratory system. May be harmful by ingestion, skin absorption and inhalation	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	2,2,4-Trimethylpentane	540-84-1	PID	NA NA	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, throat, respiratory system; bronchitis; hypochromic anemia; headache, drowsiness, lassitude (weakness, exhaustion), dizziness, nausea, incoordination; vomiting, confusion; chemical pneumonitis (aspiration liquid)	Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	2-Butanone Ethyl methyl ketone MEK Methyl acetone Methyl ethyl ketone	78-93-3	PID	200 ppm 3000 ppm	Soil Groundwater Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose; headache; dizziness; vomiting; dermatitis	Eye: Irrigate immediately Skin: Water wash immediately Breathing: Fresh air Swallow: Medical attention immediately
1.3.1 – 1.3.20	2-Chloronaphthalene	91.58-7	NA	NA MA	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation eyes, nose; skin	Eye: Irrigate immediately , Medical attention Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention
1.3.1 – 1.3.20	2-Hexanone Butyl methyl ketone MBK Methyl butyl ketone Methyl n-butyl ketone	591-78-6	PID	100 ppm 1600 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, nose; peripheral neuropathy: lassitude (weakness, exhaustion), paresthesia; dermatitis; headache, drowsiness	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	2-Methylnaphthalene β-methylnaphthalene	91-57-6	PID	NA NA	Groundwater Soil Vapor	inhalation, ingestion or skin absorption, eye contact	irritation to the skin, eyes, mucous membranes and upper respiratory tract. It may also cause headaches, nausea, vomiting, diarrhea, anemia, jaundice, euphoria, dermatitis, visual disturbances, convulsions and comatose	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	4,4'-DDD Dichlorodiphenyldichloroethane 1,1'-(2,2-Dichloroethylidene)bis (4-chlorobenzene)	72-54-8	None	NA NA	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin; paresthesia tongue, lips, face; tremor; anxiety, dizziness, confusion, malaise (vague feeling of discomfort), headache, lassitude (weakness, exhaustion); convulsions; paresis hands; vomiting; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	4-Isopropyltoluene 1-Methyl-4-(1- methylethyl)benzene 4-Isopropyltoluene; 4-Methylcumene; 1-Methyl-4-isopropylbenzene Dolcymene Camphogen Paracymene Cymene p-Cymene p-Isopropyltoluene	99-87-6	PID	NA NA	Soil Groundwater Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin, mucous membrane; dermatitis; headache, narcosis, coma	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Acenaphthene 1,2-Dihydroacenaphthylene 1,8-Ethylenenaphthalene peri-Ethylenenaphthalene Naphthyleneethylene Tricyclododecapentaene	83-32-9	PID	NA NA	Soil	inhalation, ingestion, skin and/or eye contact,	irritation to the skin, eyes, mucous membranes and upper respiratory tract; If ingested, it can cause vomiting	Eye: Irrigate immediately Skin: Soap wash immediately, if redness or irritation develop, seek medical attention immediately Breathing: Move to fresh air Swallow: do not induce vomiting, seek medical attention immediately
1.3.1 – 1.3.20	Acenaphthylene Cycopental(de)naphthalene, Acenaphthalene	208-96-8	PID	NA NA	Soil	inhalation, ingestion, skin and/or eye contact	irritation to the skin, eyes, mucous membranes and upper respiratory tract	Eye: Irrigate immediately, seek medical attention immediately, Skin: Soap wash immediately, if redness or irritation develop, seek medical attention immediately Breathing: Move to fresh air Swallow: do not induce vomiting, seek medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Acetone Dimethyl ketone Ketone propane 2-Propanone	67-64-1	PID	1000 ppm 2500 ppm	Groundwater Soil	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, nose, throat; headache, dizziness, central nervous system depression; dermatitis	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Acetophenone 1-phenylethanone Methyl phenyl ketone Phenylethanone	98-86-2	None	NA NA	Groundwater Soil	inhalation, ingestion, skin and/or eye contact	irritation to the skin, eyes, mucous membranes and upper respiratory tract	Eye: Irrigate immediately, seek medical attention immediately, Skin: Soap wash immediately, if redness or irritation develop, seek medical attention immediately Breathing: Move to fresh air Swallow: do not induce vomiting, seek medical attention immediately
1.3.1 – 1.3.20	Acrylonitrile Acrylonitrile monomer AN Cyanoethylene Propenenitrile 2-Propenenitrile VCN, Vinyl cyanide	107-13-1	PID	1 ppm 85 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin; asphyxia; headache; sneezing; nausea, vomiting; lassitude (weakness, exhaustion), dizziness; skin vesiculation; scaling dermatitis; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Water wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/ IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Aluminum	7429-90-5	None	0.5 mg/m ³ 50 mg/m ³	Soil	inhalation, skin and/or eye contact	irritation to the eyes, skin, respiratory system	Eye: Irrigate immediately Breathing: Fresh air
1.3.1 – 1.3.20	Anthracene	120-12-7	PID	0.2 mg/m ³ 80 mg/m ³ (Coal Pitch Tar)	Soil	inhalation, skin or eye contact, ingestion	irritation to the skin, eyes, mucous membranes and upper respiratory tract, abdominal pain if ingested.	Eye: Irrigate immediately, seek medical attention immediately, Skin: Soap wash immediately, Breathing: Move to fresh air, refer to medical attention; Swallow: refer to medical attention
1.3.1 – 1.3.20	Antimony	7440-36-0	None	0.5 mg/m ³ 50 mg/m ³	Groundwater Soil	inhalation, ingestion, skin and/or eye contact	irritation skin, possible dermatitis; resp distress; diarrhea; muscle tremor, convulsions; possible gastrointestinal tract	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Aroclor 1254	11097-69-1	None	0.5 mg/m ³ 5 mg/m ³	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, chloracne	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Aroclor 1260	11096-82-5	None	0.5 mg/m ³ 5 mg/m ³	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, chloracne	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Aroclor 1268	11100-14-4	None	0.5 mg/m ³ 5 mg/m ³	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, chloracne	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Arsenic	NA	None	0.5 mg/m ³ NA	Groundwater Soil	inhalation, ingestion, skin and/or eye contact	irritation skin, possible dermatitis; resp distress; diarrhea; muscle tremor, convulsions; possible gastrointestinal tract	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Asbestos	1332-21-4	NA	NA NA	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	Asbestosis (chronic exposure): dyspnea (breathing difficulty), interstitial fibrosis, restricted pulmonary function, finger clubbing; irritation eyes; [potential occupational carcinogen]	Eye: Irrigate immediately Breathing: Fresh air

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Barium	10022-31-8	None	0.5 mg/m ³ 50 mg/m ³	Groundwater Soil	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, upper respiratory system; skin burns; gastroenteritis; muscle spasm; slow pulse	Eye: Irrigate immediately Skin: Water flush immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Benzene Benzol Phenyl hydride	71-43-2	PID	3.19 mg/m ³ 1,595 mg/mg	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, respiratory system; dizziness; headache, nausea, staggered gait; lassitude (weakness, exhaustion) [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Benzo(a)anthracene Benzanthracene Benzanthrene 1,2-Benzanthracene Benzo[b]phenanthrene Tetraphene	56-55-3	PID	0.2 mg/m ³ 80 mg/m ³ (Coal Pitch Tar)	Groundwater Soil	inhalation, skin or eye contact, ingestion	dermatitis, bronchitis, [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/ IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Benzo(a)pyrene	50-32-8	PID	0.2 mg/m ³ 80 mg/m ³ (Coal Pitch Tar)	Soil	inhalation, skin or eye contact, ingestion	dermatitis, bronchitis, [potential occupational carcinogen]	Eye: Irrigate immediately, seek medical attention Skin: Soap wash immediately; Breathing: move to fresh air; Swallow: Induce vomiting if conscious, seek medical attention immediately
1.3.1 – 1.3.20	Benzo(b)fluoranthene	205-99-2	PID	0.2 mg/m ³ 80 mg/m ³ (Coal Pitch Tar)	Soil	inhalation, skin or eye contact, ingestion	irritation to eyes and skin, respiratory irritation(dizziness, weakness, fatigue, nausea, headache)	Eye: Irrigate immediately, refer to medical attention Skin: Soap wash immediately Breathing: move to fresh air Swallow: Medical attention immediately
1.3.1 – 1.3.20	Benzo(g,h,i)perylene Benzo(ghi)perylene	191-24-2	PID	0.2 mg/m ³ 80 mg/m ³ (Coal Pitch Tar)	Soil	inhalation, skin or eye contact, ingestion	NA	Eye: Irrigate immediately, refer to medical attention Skin: Soap wash immediately Breathing: move to fresh air Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Benzo(k)fluoranthene	207-08-9	PID	0.2 mg/m ³ 80 mg/m ³ (Coal Pitch Tar)	Soil	inhalation, skin or eye contact, ingestion	irritation to eyes and skin, respiratory irritation (dizziness, weakness, fatigue, nausea, headache)	Eye: Irrigate immediately, refer to medical attention Skin: Soap wash immediately Breathing: move to fresh air Swallow: Medical attention immediately
1.3.1 – 1.3.20	Benzyl butyl phthalate Butyl benzyl phthalate Butylbenzylphthalate	86-66-7	None	NA NA	Groundwater Soil Vapor	inhalation, skin or eye contact, ingestion	irritation to eyes and skin, respiratory irritation (dizziness, weakness, fatigue, nausea, headache)	Eye: Irrigate immediately, refer to medical attention Skin: Soap wash immediately Breathing: move to fresh air Swallow: Medical attention immediately
1.3.1 – 1.3.20	Beryllium	7440-41- 7	None	0.002 mg/m ³ 4 mg/m ³	Soil	inhalation, skin and/or eye contact	berylliosis (chronic exposure): anorexia, weight loss, lassitude (weakness, exhaustion), chest pain, cough, clubbing of fingers, cyanosis, pulmonary insufficiency; irritation to the eyes; dermatitis; [potential occupational carcinogen]	Eye: Irrigate immediately Breathing: Fresh air

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid	
1.3.1 – 1.3.20	Beta-Endosulfan Beta Endosulfan Endosulfan II (beta) Endosulfan II	33213-65-9	115-29-7	None	NA NA	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation skin; nausea, confusion, agitation, flushing, dry mouth, tremor, convulsions, headache; in animals: kidney, liver injury; decreased testis weight	Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Bis(2-ethylhexyl)phthalate Bis(2-Ethylhexyl) Phthalate Di-sec octyl phthalate DEHP Di(2-ethylhexyl)phthalate Octyl phthalate	117-81-7	None	5 mg/m ³ 5000 mg/m ³	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, mucous membrane; in animals: liver damage; teratogenic effects; [potential occupational carcinogen	Eye: Irrigate immediately Breathing: Respiratory support Swallow: Medical attention immediately	
1.3.1 – 1.3.20	Cadmium	7440-43-9	None	0.005 mg/m ³ 9 mg/m ³	Soil	inhalation, ingestion	pulmonary edema, dyspnea (breathing difficulty), cough, chest tightness, substernal (occurring beneath the sternum) pain; headache; chills, muscle aches; nausea, vomiting, diarrhea; anosmia (loss of the sense of smell), emphysema, proteinuria, mild anemia; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately	

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Calcium	7440-70-2	None	NA	Groundwater Soil	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, upper resp tract; ulcer, perforation nasal septum; pneumonitis; dermatitis	Eye: Irrigate immediately Skin: Water flush immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Carbazole 9-azafluorene Dibenzopyrrole Diphenylimine diphenyleneimide	86-74-8	None	NA NA	Soil	inhalation, skin absorption (liquid), skin and/or eye contact	irritation to eyes and skin, respiratory irritation	Eye: Irrigate immediately, refer to medical attention Skin: Soap wash immediately Breathing: move to fresh air Swallow: Medical attention immediately
1.3.1 – 1.3.20	Carbon disulfide	75-15-0	PID	20 ppm 500 ppm	Soil Groundwater Vapor	inhalation, skin or eye contact, ingestion	irritation to the eyes, skin, respiratory system	Eye: Irrigate immediately (liquid) Skin: Water flush immediately (liquid) Breathing: Respiratory support
1.3.1 – 1.3.20	Carbon tetrachloride Carbon chloride Carbon tet Freon® 10 Halon® 104 Tetrachloromethane	56-23-5	PID	10 ppm 200 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin; central nervous system depression; nausea, vomiting; liver, kidney injury; drowsiness, dizziness, incoordination; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/ IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Chlordane Chlordan Chlordano 1,2,4,5,6,7,8,8-Octachloro- 3a,4,7,7a-tetrahydro-4,7- methanoindane	57-74-9	None	0.5 mg/m ³ 100 mg/m ³	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	Blurred vision; confusion; ataxia, delirium; cough; abdominal pain, nausea, vomiting, diarrhea; irritability, tremor, convulsions; anuria	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Chloroform Methane trichloride Trichloromethane	67-66-3	None	50 ppm 500 ppm	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin; dizziness, mental dullness, nausea, confusion; headache, lassitude (weakness, exhaustion); anesthesia; enlarged liver; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Chromium Hexavalent- Trivalent-	7440-47- 3	None	1.0 mg/m ³ 250 mg/m ³	Groundwater Soil	inhalation absorption ingestion	irritation to eye, skin, and respiratory	Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Chrysene Benzo[a]phenanthrene 1,2-Benzphenanthrene	218-01-9	PID	0.2 mg/m ³ 80 mg/m ³ (Coal Pitch Tar)	Groundwater Soil	inhalation, absorption, ingestion, consumption	irritation to eye, skin, and respiratory, gastrointestinal irritation nausea, vomit, diarrhea [potential occupational carcinogen]	Eyes: Irrigate immediately Skin: Soap wash promptly. Breath: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Cis-Chlordane α-Chlordane alpha Chlordane cis-Chlordan CIS-CHLORDANE Chlordane cis-;Chlordane cis;ALPHA-CHLORDAN Chlordan, cis-ALPHA-CHLORDANE alpha(cis)-chlordane α-chlordane solution	5102-71- 9	None	0.5 mg/m ³ 100 mg/m ³	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	Blurred vision; confusion; ataxia, delirium; cough; abdominal pain, nausea, vomiting, diarrhea; irritability, tremor, convulsions; anuria	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Cobalt	7440-48- 4	None	0.1 mg/m ³ 20 mg/m ³	Soil	inhalation, ingestion, skin and/or eye contact	Cough, dyspnea (breathing difficulty), wheezing, decreased pulmonary function; weight loss; dermatitis; diffuse nodular fibrosis; resp hypersensitivity, asthma	Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Copper	7440-50- 8	None	1.0 mg/m ³ 100 mg/m ³	Groundwater Soil	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, nose, metallic taste; dermatitis; anemia	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/ IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Cumene Cumol Isopropylbenzene 2-Phenyl propane	98-82-8	PID	50 ppm 900 ppm	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin, mucous membrane; dermatitis; headache, narcosis, coma	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Cyanide	57-12-5	None	5 mg/m3 25 mg/m3	Groundwater Soil	inhalation, ingestion, skin and/or eye contact	Exposure to cyanide can cause weakness, headaches, confusion, dizziness, fatigue, anxiety, sleepiness, nausea and vomiting. Breathing can speed up then become slow and gasping. Coma and convulsions also occur. If large amounts of cyanide have been absorbed by the body, the person usually collapses and death can occur very quickly. Long-term exposure to lower levels of cyanide can cause skin and nose irritation, itching, rashes and thyroid changes.	Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Cyclohexane Benzene hexahydride Hexahydrobenzene Hexamethylene Hexanaphthene	110-82-7	PID	300 ppm 1300 ppm	Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, respiratory system; drowsiness; dermatitis; narcosis, coma	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	DDE 4,4-DDE 1,1-bis-(4-chlorophenyl)-2,2- dichloroethene Dichlorodiphenyldichloroethyle ne	72-55-9	None	NA NA	Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	Oral ingestion of food is the primary source of exposure for the general population. Acute and chronic ingestion may cause nausea, vomiting, diarrhea, stomach pain, headache, dizziness, disorientation, tingling sensation, kidney damage, liver damage, convulsions, coma, and death. 4,4' DDE may cross the placenta and can be excreted in breast milk	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	DDT 4,4-DDT p,p'-DDT Dichlorodiphenyltrichloroethan e 1,1,1-Trichloro-2,2-bis(p- chlorophenyl)ethane	50-29-3	None	1 mg/m ³ 500 mg/m ³	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin; paresthesia tongue, lips, face; tremor; anxiety, dizziness, confusion, malaise (vague feeling of discomfort), headache, lassitude (weakness, exhaustion); convulsions; paresis hands; vomiting; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Di-N-Octylphthalate	117-84-0	None	NA NA	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, upper respiratory system, stomach	Eye: Irrigate immediately Skin: Wash regularly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Dibenz(a,h)anthracene	53-70-3	PID	0.2 mg/m ³ 80 mg/m ³ (Coal Pitch Tar)	Groundwater Soil	inhalation, absorption, ingestion, consumption	irritation to eyes, skin, respiratory, and digestion [potential occupational carcinogen]	Eyes: Irrigate immediately Skin: Soap wash promptly. Breath: Respiratory support PID Swallow: Medical attention immediately
1.3.1 – 1.3.20	Dibenzofuran	132-64-9	None	NA NA	Soil	inhalation, absorption	irritation to eyes, and skin	Eyes: Irrigate immediately Skin: Soap wash promptly.
1.3.1 – 1.3.20	Dibutyl phthalate Di-n-butyl phthalate Butyl phthalate n-Butyl phthalate 1,2-Benzenedicarboxylic acid dibutyl ester o-Benzenedicarboxylic acid dibutyl ester DBP Palatinol C, Elaol Dibutyl-1,2-benzene- dicarboxylate Di-n-butyl Phthalate Di-n-butylphthalate	84-74-2	None	5 mg/m ³ 4000 mg/m ³	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, upper respiratory system, stomach	Eye: Irrigate immediately Skin: Wash regularly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Dichlorodifluoromethane Difluorodichloromethane, Fluorocarbon 12 Freon 12 Freon® 12 Genetron® 12 Halon® 122 Propellant 12 Refrigerant 12 Dichlorodifluoromethane	75-71-8	None	1000 pp, 15,000 ppm	Groundwater Soil Vapor	inhalation, skin and/or eye contact (liquid)	dizziness, tremor, asphyxia, unconsciousness, cardiac arrhythmias, cardiac arrest; liquid: frostbite	Eye: Frostbite Skin: Frostbite Breathing: Respiratory support
1.3.1 – 1.3.20	Dieldrin HEOD 1,2,3,4,10,10-Hexachloro-6,7- epoxy-1,4,4a,5,6,7,8,8a- octahydro-1,4-endo exo-5,8-dimethanonaphthalene	60-57-1	PID	0.25 mg/m3 50 mg/m3	Groundwater Soil Water	inhalation, skin absorption, ingestion, skin and/or eye contact	headache, dizziness; nausea, vomiting, malaise (vague feeling of discomfort), sweating; myoclonic limb jerks; clonic, tonic convulsions; coma; [potential occupational carcinogen]; in animals: liver, kidney damage	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Endosulfan sulfate 1,4,5,6,7,7-Hexachloro-5- norbornene-2,3-dimethanol, cyclic sulfate 6,7,8,9,10,10- hexachloro01,5,5a,9,9a- hexahydro-6,9-methano-2,4,3- benzodioxathiepin-3,3-dioxide	1031-07- 8	None	NA NA	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	Hypersensitive to stimulation, sensation of prickling, tingling or creeping on skin. Headache, dizziness, nausea, vomiting, incoordination, tremor, mental confusion, hyperexcitable state. In severe cases: convulsions, seizures, coma and respiratory depression.	Eye: Irrigate immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/ IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Endrin 1,2,3,4,10,10-Hexachloro-6,7-epoxy-1,4,4a,5,6,7,8,8a-octahydro-1,4-endo,endo-5,8-dimethanonaphthalene; Hexadrin	72-20-8	None	0.1 mg/m3 2 mg/m3	Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	epileptiform convulsions; stupor, headache, dizziness; abdominal discomfort, nausea, vomiting; insomnia; aggressiveness, confusion; drowsiness, lassitude (weakness, exhaustion); anorexia; in animals: liver damage	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Endrin aldehyde	7421-93-4	None	0.1 mg/m3 2 mg/m3	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	epileptiform convulsions; stupor, headache, dizziness; abdominal discomfort, nausea, vomiting; insomnia; aggressiveness, confusion; drowsiness, lassitude (weakness, exhaustion); anorexia; in animals: liver damage	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Ethanol Absolute alcohol Alcohol cologne spirit drinking alcohol ethane monoxide ethylic alcohol EtOH ethyl alcohol ethyl hydrate ethyl hydroxide ethylol grain alcohol hydroxyethane methylcarbinol	64-17-5	PID	1000 ppm 3300 ppm	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough; liver damage; anemia; reproductive, teratogenic effects	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Fresh air Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/ IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Ethyl benzene Ethylbenzene Ethylbenzol Phenylethane	100-40-4	PID	435 mg/m ³ 3,472 mg/m ³	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, mucous membrane; headache; dermatitis; narcosis, coma	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Fluoranthene Benzo(j, k)fluorene	206-44-0	PID	0.2 mg/m ³ 80 mg/m ³ (Coal Pitch Tar)	Groundwater Soil	inhalation, skin or eye contact, ingestion	irritation to eyes and skin, respiratory irritation(dizziness, weakness, fatigue, nausea, headache)	Eye: Irrigate immediately, refer to medical attention Skin: Soap wash immediately Breathing: move to fresh air Swallow: Medical attention immediately
1.3.1 – 1.3.20	Fluorene	86-73-7	PID	0.2 mg/m ³ 80 mg/m ³ (Coal Pitch Tar)	Soil	inhalation, skin or eye contact, ingestion	irritation to eyes and skin, respiratory irritation(dizziness, weakness, fatigue, nausea, headache)	Eye: Irrigate immediately, refer to medical attention Skin: Soap wash immediately Breathing: move to fresh air Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Fuel Oil No. 2	68476-30-2	PID	NA NA	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, throat; burning sensation in chest; headache, nausea, lassitude (weakness, exhaustion), restlessness, incoordination, confusion, drowsiness; vomiting, diarrhea; dermatitis; chemical pneumonitis (aspiration liquid)	Eye: Irrigate immediately Skin: Soap flush immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Gasoline	8006-61-9	PID	NA NA	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin, mucous membrane; dermatitis; headache, lassitude (weakness, exhaustion), blurred vision, dizziness, slurred speech, confusion, convulsions; chemical pneumonitis (aspiration liquid)	Eye: Irrigate immediately Skin: Soap flush immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Helium	7440-59-7	Helium Detector	NA NA	NA	inhalation	dizziness, headache, and nausea	Breathing: Respiratory support
1.3.1 – 1.3.20	Heptachlor	76-44-8	None	0.5 mg/m ³ 35 mg/m ³	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	In animals: tremor, convulsions; liver damage; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/ IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Heptachlor epoxide 1,4,5,6,7,8-Heptachloro-3a,4,7,7a-tetrahydro-4,7-methano-1H-indene	1024-57-3	None	0.5 mg/m3 35 mg/m3	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	In animals: tremor, convulsions; liver damage; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Heptane n-Heptane	142-82-5	PID	500 ppm 750 ppm	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	dizziness, stupor, incoordination; loss of appetite, nausea; dermatitis; chemical pneumonitis (aspiration liquid); unconsciousness	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Hexachlorobutadiene HCBD Hexachloro-1,3-butadiene 1,3-Hexachlorobutadiene Perchlorobutadiene	87-68-3	PID	NA NA	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	In animals: irritation to the eyes, skin, respiratory system; kidney damage; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Indeno(1,2,3-c,d)pyrene	193-39-5	None	0.2 mg/m ³ 80 mg/m ³ (Coal Pitch Tar)	Groundwater Soil	inhalation, absorption, ingestion, consumption	irritation to eyes, skin, respiratory, and digestion [potential occupational carcinogen]	Eyes: Irrigate immediately Skin: Soap wash promptly. Breath: Respiratory support Swallow: Medical attention immediately, wash mouth with water
1.3.1 – 1.3.20	Iron	7439-89- 6	None	10 mg/m ³ NA	Groundwater Soil	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, mucous membrane; abdominal pain, diarrhea, vomiting	Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Isopropyl Acetate Isopropanol Isopropyl ester of acetic acid 1-Methylethyl ester of acetic acid 2-Propyl acetate	10821-4	PID	250 ppm 1800 ppm		inhalation, ingestion, skin and/or eye contact	irritation eyes, skin, nose; dermatitis; In Animals: narcosis	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Isopropyl alcohol Iso-Propyl Alcohol Carbinol IPA Isopropanol 2-Propanol sec-Propyl alcohol Rubbing alcohol Isopropylalcohol	67-63-0	PID	400 ppm 2000 ppm	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, nose, throat; drowsiness, dizziness, headache; dry cracking skin; in animals: narcosis	Eye: Irrigate immediately Skin: Water flush Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Lead	7439-92-1	None	0.050 mg/m ³ 100 mg/m ³	Groundwater Soil	inhalation, ingestion, skin and/or eye contact	lassitude (weakness, exhaustion), insomnia; facial pallor; anorexia, weight loss, malnutrition; constipation, abdominal pain, colic; anemia; gingival lead line; tremor; paralysis wrist, ankles; encephalopathy; kidney disease; irritation to the eyes; hypertension	Eye: Irrigate immediately Skin: Soap flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Magnesium	7439-95-4	None	15 mg/m ³ NA	Soil	inhalation, skin and/or eye contact	irritation to the eyes, skin, respiratory system; cough	Eye: Irrigate immediately Breathing: Fresh air
1.3.1 – 1.3.20	Manganese	7439-96-5	None	5 mg/m ³ 500 mg/m ³	Groundwater Soil	inhalation, ingestion	aerosol is irritating to the respiratory tract	Eye: Irrigate immediately Skin: Soap flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	m-Cresol 3-methylphenol meta-Cresol 3-Cresol m-Cresylic acid 1-Hydroxy-3-methylbenzene 3-Hydroxytoluene 3-Methylphenol	108-39-4	PID	5 ppm 250 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin, mucous membrane; central nervous system effects: confusion, depression, resp failure; dyspnea (breathing difficulty), irreg rapid resp, weak pulse; eye, skin burns; dermatitis; lung, liver, kidney, pancreas damage	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Mercury	7439-97-6	None	0.1 mg/m ³ 10 mg/m ³	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin; cough, chest pain, dyspnea (breathing difficulty), bronchitis, pneumonitis; tremor, insomnia, irritability, headache, lassitude (weakness, exhaustion); stomatitis, salivation; gastrointestinal disturbance, anorexia, weight loss; proteinuria	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Methyl Bromide Bromomethane Monobromomethane	74-83-9	PID	20 ppm 250 ppm	Soil Groundwater Vapor	inhalation, skin absorption (liquid), skin and/or eye contact (liquid)	irritation to the eyes, skin, respiratory system; muscle weak, incoordination, visual disturbance, dizziness; nausea, vomiting, headache; malaise (vague feeling of discomfort); hand tremor; convulsions; dyspnea (breathing difficulty); skin vesiculation; liquid: frostbite; [potential occupational carcinogen]	Eye: Irrigate immediately (liquid) Skin: Water flush immediately (liquid) Breathing: Respiratory support
1.3.1 – 1.3.20	Methyl Chloride Chloromethane Monochloromethane	74-87-3	NA	100 ppm 2000 ppm	Groundwater Soil	inhalation, skin and/or eye contact	dizziness, nausea, vomiting; visual disturbance, stagger, slurred speech, convulsions, coma; liver, kidney damage; liquid: frostbite; reproductive, teratogenic effects; [potential occupational carcinogen]	Eye: Frostbite Skin: Frostbite Breathing: Respiratory support

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Methyl chloroform Chloroethene 1,1,1-Trichloroethane 1,1,1-Trichloroethane- (stabilized) 1,1,1-TCA	71-55-6	PID	350 ppm 700 ppm	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin; headache, lassitude (weakness, exhaustion), central nervous system depression, poor equilibrium; dermatitis; cardiac arrhythmias; liver damage	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention
1.3.1 – 1.3.20	Methyl <i>tert</i> -butyl ether MTBE Methyl tertiary-butyl ether Methyl t-butyl ether <i>tert</i> -Butyl methyl ether tBME <i>tert</i> -BuOMe	1634-04- 4	PID	NA NA	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, throat; burning sensation in chest; headache, nausea, lassitude (weakness, exhaustion), restlessness, incoordination, confusion, drowsiness; vomiting, diarrhea; dermatitis; chemical pneumonitis (aspiration liquid)	Eye: Irrigate immediately Skin: Soap flush immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Methylene Chloride Dichloromethane Methylene dichloride	75-09-2	PID	25 ppm 2300 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin; lassitude (weakness, exhaustion), drowsiness, dizziness; numb, tingle limbs; nausea; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	m-Xylenes 1,3-Dimethylbenzene m-Xylol Metaxylene	108-38-3	PID	100 ppm 900 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, throat; dizziness, excitement, drowsiness, incoordination, staggering gait; corneal vacuolization; nausea, vomiting, abdominal pain; dermatitis	Eye: Irrigate immediately Skin: Soap flush immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Naphthalene Naphthalin Tar camphor White tar	91-20-3	PID	50 mg/m ³ 250 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes; headache, confusion, excitement, malaise (vague feeling of discomfort); nausea, vomiting, abdominal pain; irritation bladder; profuse sweating; hematuria (blood in the urine); dermatitis, optical neuritis	Eye: Irrigate immediately Skin: Molten flush immediately/solid-liquid soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	n-Butylbenzene	104-51-8	PID	NA NA	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin; dry nose, throat; headache; low blood pressure, tachycardia, abnormal cardiovascular system stress; central nervous system, hematopoietic depression; metallic taste; liver, kidney injury	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	N-ethyl perfluorooctane sulfonamido acetic acid NEtFOSAA N-Ethylperfluorooctanesulfonamide	4151-50-2	NA	NA NA	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	n-Hexane Hexane, Hexyl hydride, normal-Hexane	110-54-3	PID	500 ppm 1100 ppm	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, nose; nausea, headache; peripheral neuropathy: numb extremities, muscle weak; dermatitis; dizziness; chemical pneumonitis (aspiration liquid)	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	N.Methyl Perfluorooctanesulfonamidoacetic Acid (NMeFOSAA)	24448-09-7	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Nickel	7440-02-0	None	NA 10 mg/m ³	Groundwater Soil	ion, ingestion, skin and/or eye contact	sensitization dermatitis, allergic asthma, pneumonitis; [potential occupational carcinogen]	Skin: Water flush immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Non-Flammable Gas Mixture CALGAS (Equipment Calibration Gas : Oxygen Methane Hydrogen Sulfide Carbon Monoxide Nitrogen	7782-44- 7 74-82-8 7783-08- 4 830-08-0 7727-37- 9	Multi-Gas PID	NA/NA NA/NA 10/100 ppm 50/1200 ppm NA/NA	NA	inhalation	dizziness, headache, and nausea	Breathing: Respiratory support
1.3.1 – 1.3.20	Non-Flammable Gas Mixture CALGAS (Equipment Calibration Gas : Oxygen Isobutylene Nitrogen	7782-44- 7 115-11-7 7727-37- 9	PID	NA/NA NA/NA NA/NA	NA	inhalation	dizziness, headache, and nausea	Breathing: Respiratory support
1.3.1 – 1.3.20	n-Propylbenzene Isocumene Propylbenzene 1-Phenylpropane 1-Propylbenzene Phenylpropane	103-65-1	PID	NA NA	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin; dry nose, throat; headache; low blood pressure, tachycardia, abnormal cardiovascular system stress; central nervous system, hematopoietic depression; metallic taste; liver, kidney injury	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/ IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	o-Cresol ortho-Cresol 2-Cresol o-Cresylic acid 1-Hydroxy-2-methylbenzene 2-Hydroxytoluene 2-Methyl phenol 2-Methylphenol 2-Methylphenol	95-48-7	PID	5 ppm 250 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin, mucous membrane; central nervous system effects: confusion, depression, resp failure; dyspnea (breathing difficulty), irreg rapid resp, weak pulse; eye, skin burns; dermatitis; lung, liver, kidney, pancreas damage	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately ethyhp hhhhhhhhh
1.3.1 – 1.3.20	o-Xylenes 1,2-Dimethylbenzene ortho-Xylene o-Xylol	95-47-6	PID	100 ppm 900 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, throat; dizziness, excitement, drowsiness, incoordination, staggering gait; corneal vacuolization; nausea, vomiting, abdominal pain; dermatitis	Eye: Irrigate immediately Skin: Soap flush immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	p-Cresol para-Cresol 4-Cresol p-Cresylic acid 1-Hydroxy-4-methylbenzene 4-Hydroxytoluene 4-Methylphenol	106-44-5	PID	5 ppm 250 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin, mucous membrane; central nervous system effects: confusion, depression, resp failure; dyspnea (breathing difficulty), irreg rapid resp, weak pulse; eye, skin burns; dermatitis; lung, liver, kidney, pancreas damage	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	p-Diethylbenzene 1,4-Diethylbenzene 1,4-Diethyl benzene	105-05-5	PID	None None	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, respiratory system; skin burns; in animals: central nervous system depression	Eye: Irrigate immediately Skin: Soap wash Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Pentachlorophenol PCP; Penta; 2,3,4,5,6-Pentachlorophenol	87-86-5	PID	0.5 mg/m3 2.5 mg/m3	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, nose, throat; sneezing, cough; lassitude (weakness, exhaustion), anorexia, weight loss; sweating; headache, dizziness; nausea, vomiting; dyspnea (breathing difficulty), chest pain; high fever; dermatitis	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluorobutanesulfonic acid FC-98 Nonaflate Nonafluorobutanesulphonic acid Perfluorobutanesulfonic Acid Perfluorobutane sulfonate PFBS	375-73-5	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluorobutanoic Acid Heptafluorobutyric acid Heptafluorobutanoic acid Perfluorobutyric acid PFBA	375-22-4	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Perfluorodecanesulfonic Acid PFDS	335-77-3	NA	NA NA	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluorodecanoic acid PFDA	335-76-2	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluorododecanoic acid Perfluoralauric acid Tricosafuorododecanoic acid PFDoA	307-55-1	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluoroheptanoic acid Perfluoroheptanoic acid Tridecafluoroheptanoic acid PFHpA	375-85-9	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Perfluoroheptane sulfonic Acid Perfluoroheptane sulfonate Perfluoroheptanesulfonic acid PFHpS	375-92-8	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluorohexanesulfonic Acid perfluorohexanesulfonate perfluorohexanesulfonic acid PFHxS	355-46-4	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluorohexanoic Acid PFHxA	307-24-4	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluorononanoic Acid Perfluorononanoic Acid PFNA perfluoro-n-nonanoic acid perfluorononanoate	375-95-1	NA	None None	Groundwater	Groundwater	inhalation, skin or eye contact, ingestion; strong acid	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Perfluorooctanesulfonamide Erfluorocetyl sulfonamide Perfluorooctane sulfonamide Heptadecafluorooctanesulphonamide Perfluorooctanesulfonic acid amide Deethylsulfluramid FC-99 PFOSA	754-91-6	NA	NA NA	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluorooctanesulfonic Acid PFOS	1763-23-1	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluorooctanoic Acid PFOA pentadecafluorooctanoic acid perfluorooctanoate perfluorocaprylic acid	335-67-1	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluoropentanoic Acid PFPeA	2706-90-3	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Perfluoroundecanoic Acid PFUnA PFUnDA Perfluoroundecanoic Acid Henicosfluoroundecanoic Acid	4234-23-5	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluorotetradecanoic Acid PFTA	376-06-7	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluorotridecanoic Acid PFTTrDA Sodium 1H,1H,2H,2H-Perfluorodecane Sulfonate (8:2)	72629-94-8	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Perfluoroundecanoic Acid FPUA	2058-94-8	NA	None None	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	1H,1H,2H,2H-Perfluorodecane sulfonic Acid (8:2FTS) 8:2 Fluorinated Telomer Sulfonates (8:2FTS)	27619-96-1	NA	NA NA	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	1H,1H,2H,2H-Perfluorooctanesulfonic Acid (6:2FTS) Sodium 1H,1H, 2H, 2H-Perfluorooctane Sulfonate (6:2)(6:2FTS) 6:2 Fluorinated Telomer Sulfonates (6:2FTS) Sodium 1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2)	27619-97-2	NA	NA NA	Groundwater	inhalation, skin or eye contact, ingestion	irritation to eyes with possible eye damage, skin causing rash, redness or burning, irritation to nose, throat and lungs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	p-Ethyltoluene 4-Ethyltoluene 1-ethyl-4-methyl-benzene	622-96-8	NA	NA NA	Soil	ingestion, skin and/or eye contact	irritation to the eyes, skin, mucous membrane; headache; dermatitis; narcosis, coma	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Phenanthrene	85-01-8	PID	0.2 mg/m ³ 80 mg/m ³ (Coal Pitch Tar)	Groundwater Soil	inhalation, skin or eye contact, ingestion	irritation to eyes and skin, respiratory irritation(dizziness, weakness, fatigue, nausea, headache)	Eye: Irrigate immediately, refer to medical attention Skin: Soap wash immediately Breathing: move to fresh air Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Phenol Carbolic acid Hydroxybenzene, Monohydroxybenzene Phenyl alcohol Phenyl hydroxide	108-95-2	PID	5 ppm 250 ppm	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, nose, throat; anorexia, weight loss; lassitude (weakness, exhaustion), muscle ache, pain; dark urine, skin burns; dermatitis; tremor, convulsions, twitching	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Potassium	7440-09-7	None	NA NA	Soil	inhalation, skin absorption, ingestion, skin and/or eye contact inhalation, ingestion, skin and/or eye contact	eye: Causes eye burns. Skin: Causes skin burns. Reacts with moisture in the skin to form potassium hydroxide and hydrogen with much heat. ingestion: Causes gastrointestinal tract burns. inhalation: May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Causes chemical burns to the respiratory tract. inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.	Eyes: Get medical aid immediately Skin: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Ingestion: If victim is conscious and alert, give 2-4 full cups of milk or water. Get medical aid immediately. inhalation: Get medical aid immediately.

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	p-Xylenes 1,4-Dimethylbenzene para-Xylene p-XyloI	106-42-3	PID	100 ppm 900 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, throat; dizziness, excitement, drowsiness, incoordination, staggering gait; corneal vacuolization; nausea, vomiting, abdominal pain; dermatitis	Eye: Irrigate immediately Skin: Soap flush immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Pyrene benzo[def]phenanthrene	129-00-0	PID	0.2 mg/m ³ 80 mg/m ³ (Coal Pitch Tar)	Groundwater Soil	inhalation, skin or eye contact, ingestion	irritation to eyes and skin, respiratory irritation(dizziness, weakness, fatigue, nausea, headache)	Eye: Irrigate immediately, refer to medical attention Skin: Soap wash immediately Breathing: move to fresh air Swallow: Medical attention immediately
1.3.1 – 1.3.20	sec-Butylbenzene	135-98-8	PID	10 ppm 100 ppm	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, nose, throat; inhalation: nausea or vomiting	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Selenium	7782-49-2	None	1 mg/m ³ 0.2 mg/m ³	Soil	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, throat; visual disturbance; headache; chills, fever; dyspnea (breathing difficulty), bronchitis; metallic taste, garlic breath, gastrointestinal disturbance; dermatitis; eye, skin burns; in animals: anemia; liver necrosis, cirrhosis; kidney, spleen damage	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Silver	7440-22-4	None	0.01 mg/m ³ 10 mg/m ³	Soil	inhalation, ingestion, skin and/or eye contact	blue-gray eyes, nasal septum, throat, skin; irritation, ulceration skin; gastrointestinal disturbance	Eye: Irrigate immediately Skin: Water flush Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Sodium	7440-23-5	None	NA NA	Groundwater Soil	ion, ingestion, skin and/or eye contact	sensitization dermatitis, allergic asthma, pneumonitis; [potential occupational carcinogen]	Skin: Water flush immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Styrene Ethenyl benzene Phenylethylene Styrene monomer Styrol Vinyl benzene	100-42-5	PID	100 ppm 700 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, nose, respiratory system; headache, lassitude (weakness, exhaustion), dizziness, confusion, malaise (vague feeling of discomfort), drowsiness, unsteady gait; narcosis; defatting dermatitis; possible liver injury; reproductive effects	Eye: Irrigate immediately Skin: Water flush Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Tert-Butyl Alcohol Tertiary Butyl Alcohol Tert-Butanol Butyl alcohol 2-Methyl-2-propanol Trimethyl carbinol TBA	75-65-0	PID	100 ppm 1600 ppm	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, throat; drowsiness, narcosis	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	tert-Butylbenzene t-Butylbenzene 2-Methyl-2-phenylpropane Pseudobutylbenzene	98-06-6	PID	10 ppm NA	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	eye, skin irritation; dry nose, throat; headaches; low blood pressure, tachycardia; abnormal cardiovascular system; central nervous system depression; hematopoietic depression	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Tetrachloroethylene Perchloroethylene Perchloroethylene PCE Perk Tetrachloroethylene Tetrachloroethene	127-18-4	PID	100 ppm 150 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, throat, respiratory system; nausea; flush face, neck; dizziness, incoordination; headache, drowsiness; skin erythema (skin redness); liver damage; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Tetrahydrofuran Diethylene oxide 1,4-Epoxybutane Tetramethylene oxide THF	109-99-9	PID	200 ppm 2000 ppm	Groundwater Soil Vapor	inhalation, skin and/or eye contact, ingestion	irritation to the eyes, upper respiratory system; nausea, dizziness, headache, central nervous system depression	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immedi
1.3.1 – 1.3.20	Thallium	7440-28-0	None	0.1 mg/m ³ 15 mg/m ³	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	nausea, diarrhea, abdominal pain, vomiting; ptosis, strabismus; peri neuritis, tremor; retrosternal (occurring behind the sternum) tightness, chest pain, pulmonary edema; convulsions, chorea, psychosis; liver, kidney damage; alopecia; paresthesia legs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Toluene Methyl benzene Methyl benzol Phenyl methane Toluol	108-88-3	PID	200 ppm 500 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, nose; lassitude (weakness, exhaustion), confusion, euphoria, dizziness, headache; dilated pupils, lacrimation (discharge of tears); anxiety, muscle fatigue, paresthesia; dermatitis	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Total PCBs Chlorodiphenyl (42% chlorine) Aroclor® 1242 PCB Polychlorinated biphenyl	53469-21-9	None	0.5 mg/m ³ 5 mg/m ³	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, chloracne	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Total Xylenes Dimethylbenzene Xylol	1330-20-7	PID	100 ppm 900 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin, nose, throat; dizziness, excitement, drowsiness, incoordination, staggering gait; corneal vacuolization; nausea, vomiting, abdominal pain; dermatitis	Eye: Irrigate immediately Skin: Soap flush immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Trans-Chlordane gamma-Chlordane Gamma Chlordane	5103-74-2	None	0.5 mg/m ³ 100 mg/m ³	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	Blurred vision; confusion; ataxia, delirium; cough; abdominal pain, nausea, vomiting, diarrhea; irritability, tremor, convulsions; anuria	Eye: Irrigate immediately Skin: Soap wash immediately Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Trichloroethylene Ethylene trichloride TCE Trichloroethene Trilene	79-01-6	PID	100 ppm 1000 ppm	Groundwater Soil Vapor	inhalation, skin absorption, ingestion, skin and/or eye contact	irritation to the eyes, skin; headache, visual disturbance, lassitude (weakness, exhaustion), dizziness, tremor, drowsiness, nausea, vomiting; dermatitis; cardiac arrhythmias, paresthesia; liver injury; [potential occupational carcinogen]	Eye: Irrigate immediately Skin: Soap wash promptly Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Trichlorofluoromethane Fluorotrichloromethane Freon® 11 Monofluorotrichloromethane Refrigerant 11 Trichloromonofluoromethane	75-69-4	PID	1000 ppm 2000 ppm	Groundwater Soil Vapor	inhalation, ingestion, skin and/or eye contact	incoordination, tremor; dermatitis; cardiac arrhythmias, cardiac arrest; asphyxia; liquid: frostbite	Eye: Irrigate immediately Skin: Water flush immediately Breathing: Respiratory support Swallow: Medical attention immediately
1.3.1 – 1.3.20	Vanadium	7440-62-2	None	0.1 mg/m ³ 15 mg/m ³	Groundwater Soil	inhalation, skin absorption, ingestion, skin and/or eye contact	nausea, diarrhea, abdominal pain, vomiting; ptosis, strabismus; peri neuritis, tremor; retrosternal (occurring behind the sternum) tightness, chest pain, pulmonary edema; convulsions, chorea, psychosis; liver, kidney damage; alopecia; paresthesia legs	Eye: Irrigate immediately Skin: Water flush promptly Breathing: Respiratory support Swallow: Medical attention immediately

Task	Contaminant	CAS Number	Monitoring Device	PEL/IDLH	Source of Concentration on Site	Route of Exposure	Symptoms	First Aid
1.3.1 – 1.3.20	Vinyl Chloride Chloroethene Chloroethylen Ethylene monochloride Monochloroethene Monochloroethylene VC Vinyl chloride monomer (VCM)	75-01-4	PID	1 ppm NA	Groundwater Soil Vapor	inhalation, skin and/or eye contact (liquid)	lassitude (weakness, exhaustion); abdominal pain, gastrointestinal bleeding; enlarged liver; pallor or cyanosis of extremities; liquid: frostbite; [potential occupational carcinogen]	Eye: Frostbite Skin: Frostbite Breathing: Respiratory support
1.3.1 – 1.3.20	Zinc	7440-62- 2	None	15 mg/m ³ 500 mg/m ³	Groundwater Soil	inhalation	chills, muscle ache, nausea, fever, dry throat, cough; lassitude (weakness, exhaustion); metallic taste; headache; blurred vision; low back pain; vomiting; malaise (vague feeling of discomfort); chest tightness; dyspnea (breathing difficulty), rales, decreased pulmonary function	Breathing: Respiratory support

EXPLANATION OF ABBREVIATIONS

PID = Photoionization Detector

PEL = Permissible Exposure Limit (8-hour Time Weighted Average)

IDLH = Immediately Dangerous to Life and Health

ppm = part per million

mg/m³ = milligrams per cubic meter

500 mg/m³

TABLE 3
Summary of Monitoring Equipment

Instrument	Operation Parameters
Photoionization Detector (PID)	<p>Hazard Monitored: Many organic and some inorganic gases and vapors.</p> <p>Application: Detects total concentration of many organic and some inorganic gases and vapors. Some identification of compounds is possible if more than one probe is measured.</p> <p>Detection Method: Ionizes molecules using UV radiation; produces a current that is proportional to the number of ions.</p> <p>General Care/Maintenance: Recharge or replace battery. Regularly clean lamp window. Regularly clean and maintain the instrument and accessories.</p> <p>Typical Operating Time: 10 hours. 5 hours with strip chart recorder.</p>
Oxygen Meter	<p>Hazard Monitored: Oxygen (O₂).</p> <p>Application: Measures the percentage of O₂ in the air.</p> <p>Detection Method: Uses an electrochemical sensor to measure the partial pressure of O₂ in the air, and converts the reading to O₂ concentration.</p> <p>General Care/Maintenance: Replace detector cell according to manufacturer's recommendations. Recharge or replace batteries prior to expiration of the specified interval. If the ambient air is less than 0.5% C O₂, replace the detector cell frequently.</p> <p>Typical Operating Time: 8 – 12 hours.</p>
Additional equipment (if needed, based on site conditions)	
Combustible Gas Indicator (CGI)	<p>Hazard Monitored: Combustible gases and vapors.</p> <p>Application: Measures the concentration of combustible gas or vapor.</p> <p>Detection Method: A filament, usually made of platinum, is heated by burning the combustible gas or vapor. The increase in heat is measured. Gases and vapors are ionized in a flame. A current is produced in proportion to the number of carbon atoms present.</p> <p>General Care/Maintenance: Recharge or replace battery. Calibrate immediately before use.</p> <p>Typical Operating Time: Can be used for as long as the battery lasts, or for the recommended interval between calibrations, whichever is less.</p>
Flame Ionization Detector (FID) with Gas Chromatography Option <i>(i.e., Foxboro Organic Vapor Analyzer (OVA))</i>	<p>Hazard Monitored: Many organic gases and vapors (approved areas only).</p> <p>Application: In survey mode, detects the concentration of many organic gases and vapors. In gas chromatography (GC) mode, identifies and measures specific compounds. In survey mode, all the organic compounds are ionized and detected at the same time. In GC mode, volatile species are separated.</p> <p>General Care/Maintenance: Recharge or replace battery. Monitor fuel and/or combustion air supply gauges. Perform routine maintenance as described in the manual. Check for leaks.</p> <p>Typical Operating Time: 8 hours; 3 hours with strip chart recorder.</p>
Potable Infrared (IR) Spectrophotometer	<p>Hazard Monitored: Many gases and vapors.</p> <p>Application: Measures concentration of many gases and vapors in air. Designed to quantify one or two component mixtures.</p> <p>Detection Method: Passes different frequencies of IR through the sample. The frequencies absorbed are specific for each compound.</p> <p>General Care/Maintenance: As specified by the manufacturer.</p>

Instrument	Operation Parameters
Direct Reading Colorimetric Indicator Tube	<p>Hazard Monitored: Specific gas and vapors.</p> <p>Application: Measures concentration of specific gases and vapors.</p> <p>Detection Method: The compound reacts with the indicator chemical in the tube, producing a stain whose length or color change is proportional to the compound's concentration.</p> <p>General Care/Maintenance: Do not use a previously opened tube even if the indicator chemical is not stained. Check pump for leaks before and after use. Refrigerate before use to maintain a shelf life of about 2 years. Check expiration dates of tubes. Calibrate pump volume at least quarterly. Avoid rough handling which may cause channeling.</p>
Aerosol Monitor	<p>Hazard Monitored: Airborne particulate (dust, mist, fume) concentrations</p> <p>Application: Measures total concentration of semi-volatile organic compounds, PCBs, and metals.</p> <p>Detection Method: Based on light-scattering properties of particulate matter. Using an internal pump, air sample is drawn into the sensing volume where near infrared light scattering is used to detect particles.</p> <p>General Care/Maintenance: As specified by the mfr. Also, the instrument must be calibrated with particulates of a size and refractive index similar to those to be measured in the ambient air.</p>
Monitox	<p>Hazard Monitored: Gases and vapors.</p> <p>Application: Measures specific gases and vapors.</p> <p>Detection Method: Electrochemical sensor relatively specific for the chemical species in question.</p> <p>General Care/Maintenance: Moisten sponge before use; check the function switch; change the battery when needed.</p>
Gamma Radiation Survey Instrument	<p>Hazard Monitored: Gamma Radiation.</p> <p>Application: Environmental radiation monitor.</p> <p>Detection Method: Scintillation detector.</p> <p>General Care/Maintenance: Must be calibrated annually at a specialized facility.</p> <p>Typical Operating Time: Can be used for as long as the battery lasts, or for the recommended interval between calibrations, whichever is less.</p>

**TABLE 4
INSTRUMENTATION ACTION LEVELS**

<u>Photoionization Detector Action Levels</u>	<u>Action Required</u>
Background to 5 ppm	No respirator; no further action required
> 1 ppm but < 5 ppm for > 5 minutes	<ol style="list-style-type: none"> 1. Temporarily discontinue all activities and evaluate potential causes of the excessive readings. If these levels persist and cannot be mitigated (i.e., by slowing drilling or excavation activities), contact HSO to review conditions and determine source and appropriate response action. 2. If PID readings remain above 1 ppm, temporarily discontinue work and upgrade to Level C protection. 3. If sustained PID readings fall below 1 ppm, downgrading to Level D protection may be permitted.
> 5 ppm but < 150 ppm for > 5 minutes	<ol style="list-style-type: none"> 1. Discontinue all work; all workers shall move to an area upwind of the jobsite. 2. Evaluate potential causes of the excessive readings and allow work area to vent until VOC concentrations fall below 5 ppm. 3. Level C protection will continue to be used until PID readings fall below 1 ppm.
> 150 ppm	Evacuate the work area

- Notes:**
1. 1 ppm level based on OSHA Permissible Exposure Limit (PEL) for benzene.
 2. 5 ppm level based on OSHA Short Term Exposure Limit (STEL) maximum exposure for benzene for any 15 minute period.
 3. 150 ppm level based on NIOSH Immediately Dangerous to Life and Health (IDLH) for tetrachloroethylene.

**TABLE 5
EMERGENCY NOTIFICATION LIST**

ORGANIZATION	CONTACT	TELEPHONE
Local Police Department	NYPD	911
Local Fire Department	NYFD	911
Ambulance/Rescue Squad	NYFD	911
Hospital	Harlem Hospital Center	911 or 212-939-1000
Langan Incident Hotline		800-952-6426 ex 4699
Medical Treatment Hotline	Incident Intervention	888-449-7787
Langan Environmental Project Manager	Julie Leung	917-892-7234 (cell)
Langan Geotechnical Project Manager	James Delimitros	631-312-3987 (cell)
Langan Health and Safety Manager (HSM)	Tony Moffa	215-756-2523 (cell)
Langan Health & Safety Officer (HSO)	William Bohrer	410-984-3068 (cell)
Langan Field Team Leader (FTL)	To Be Determined	
Client's Representative	Azriel Mandel	973-622-0073
National Response Center (NRC)		800-424-8802
Chemical Transportation Emergency Center (Chemtrec)		800-424-9300
Center for Disease Control (CDC)		404-639-3534
EPA (RCRA Superfund Hotline)		800-424-9346
TSCA Hotline		202-554-1404
Poison Control Center		800-222-1222

Immediately following an injury, unless immediate emergency medical treatment is required, the injured employee must contact Incident Intervention® at 888-449-7787.

For all other incidents or near misses, unless emergency response is required, either the employee or a coworker must contact the Langan Incident Hotline at 1-(800)-9-LANGAN (ext. #4699).

TABLE 6

**SUGGESTED FREQUENCY OF PHYSIOLOGICAL MONITORING
FOR FIT AND ACCLIMATED WORKERS^A**

Adjusted Temperature^b	Normal Work Ensemble^c	Impermeable Ensemble
90°F or above (32.2°C) or above	After each 45 min. of work	After each 15 min. of work
87.5°F (30.8°-32.2°C)	After each 60 min. of work	After each 30 min. of work
82.5°-87.5°F (28.1°-30.8°C)	After each 90 min. of work	After each 60 min. of work
77.5°-82.5°F (25.3°-28.1°C)	After each 120 min. of work	After each 90 min. of work
72.5°-77.5°F (22.5°-25.3°C)	After each 150 min. of work	After each 120 min. of work

a For work levels of 250 kilocalories/hour.

b Calculate the adjusted air temperature (ta adj) by using this equation: $ta \text{ adj } ^\circ\text{F} = ta \text{ } ^\circ\text{F} + (13 \times \% \text{ sunshine})$. Measure air temperature (ta) with a standard mercury-in-glass thermometer, with the bulb shielded from radiant heat. Estimate percent sunshine by judging what percent time the sun is not covered by clouds that are thick enough to produce a shadow. (100 percent sunshine = no cloud cover and a sharp, distinct shadow; 0 percent sunshine = no shadows.)

c A normal work ensemble consists of cotton coveralls or other cotton clothing with long sleeves and pants.

**TABLE 7
HEAT INDEX**

RELATIVE HUMIDITY	ENVIRONMENTAL TEMPERATURE (Fahrenheit)										
	70	75	80	85	90	95	100	105	110	115	120
	APPARENT TEMPERATURE*										
0%	64	69	73	78	83	87	91	95	99	103	107
10%	65	70	75	80	85	90	95	100	105	111	116
20%	66	72	77	82	87	93	99	105	112	120	130
30%	67	73	78	84	90	96	104	113	123	135	148
40%	68	74	79	86	93	101	110	123	137	151	
50%	69	75	81	88	96	107	120	135	150		
60%	70	76	82	90	100	114	132	149			
70%	70	77	85	93	106	124	144				
80%	71	78	86	97	113	136					
90%	71	79	88	102	122						
100%	72	80	91	108							

*Combined Index of Heat and Humidity...what it "feels like" to the body
Source: National Oceanic and Atmospheric Administration

How to use Heat Index:

1. Across top locate Environmental Temperature
2. Down left side locate Relative Humidity
3. Follow across and down to find Apparent Temperature
4. Determine Heat Stress Risk on chart at right

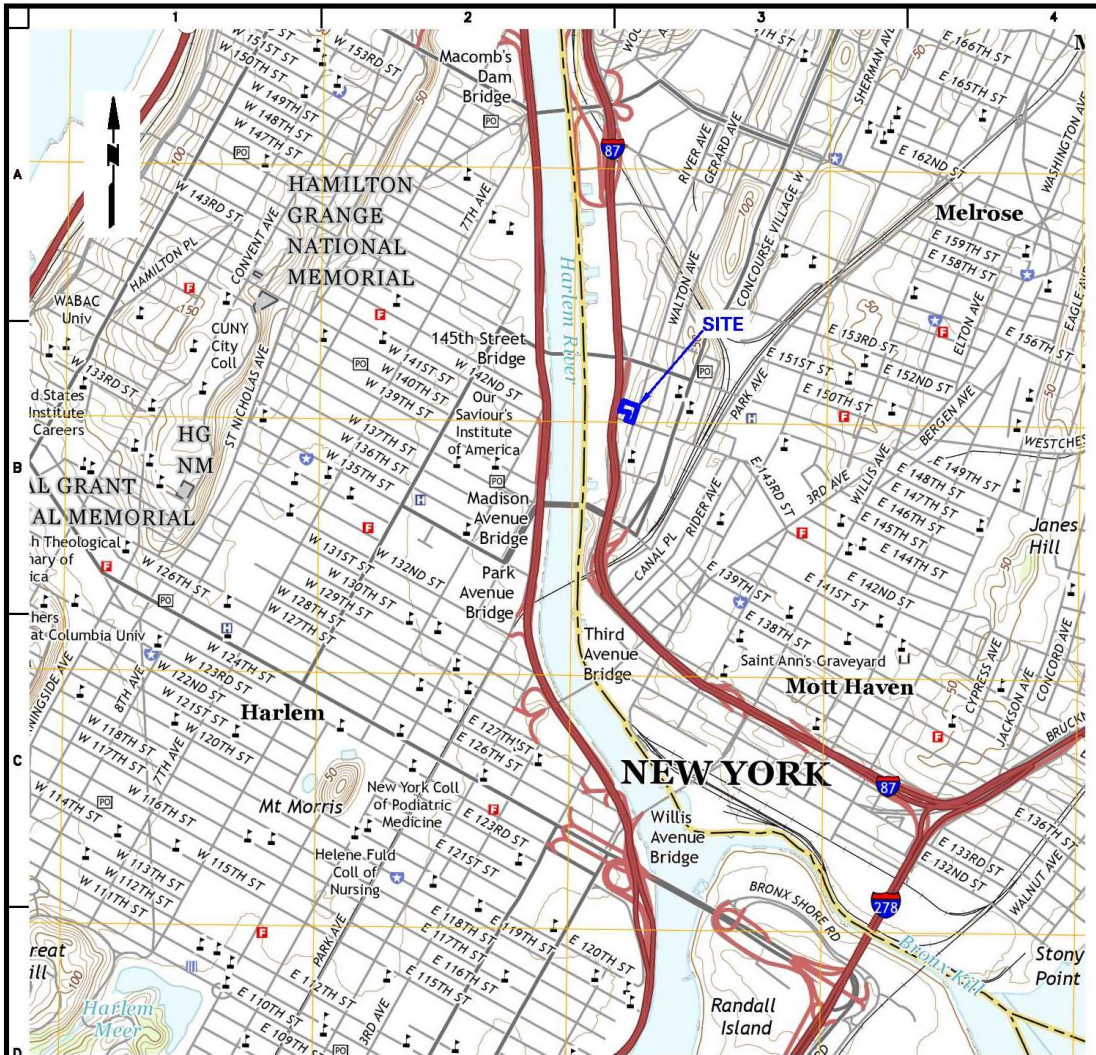
Note: Exposure to full sunshine can increase Heat Index values by up to 15 degrees F.

Apparent Temperature	Heat Stress Risk with Physical Activity and/or Prolonged Exposure
90-105	Heat Cramps or Heat Exhaustion Possible
105-130	Heat Cramps or Heat Exhaustion Likely, Heat Stroke Possible
>130	Heatstroke Highly Likely

FIGURES

FIGURE 1

Site Location Map



— APPROXIMATE SITE BOUNDARY

NOTE: BASE MAP IS REFERENCED FROM THE UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5 MINUTE SERIES CENTRAL PARK QUADRANGLE MAP, DATED 2016

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 Landscape Architecture, D.P.C. S.A.
 Langan Engineering, Environmental, Surveying and
 Landscape Architecture, D.F.C.
 Langan Engineering and Environmental Services, Inc.
 Langan CT, Inc.
 Langan International LLC
 Collectively known as Langan

Project
**GERARD AVENUE
 AND EAST 146TH
 STREET**
**BLOCK NO. 289, LOT NOs. 3, 12,
 AND 25**
BRONX, NEW YORK

Figure Title
**SITE LOCATION
 MAP**

Project No. 170487001	Drawing No. 1
Date 08/28/2017	
Scale N.T.S.	
Drawn By VZ	Checked By JL
Submission Date	
Sheet 1 of 5	

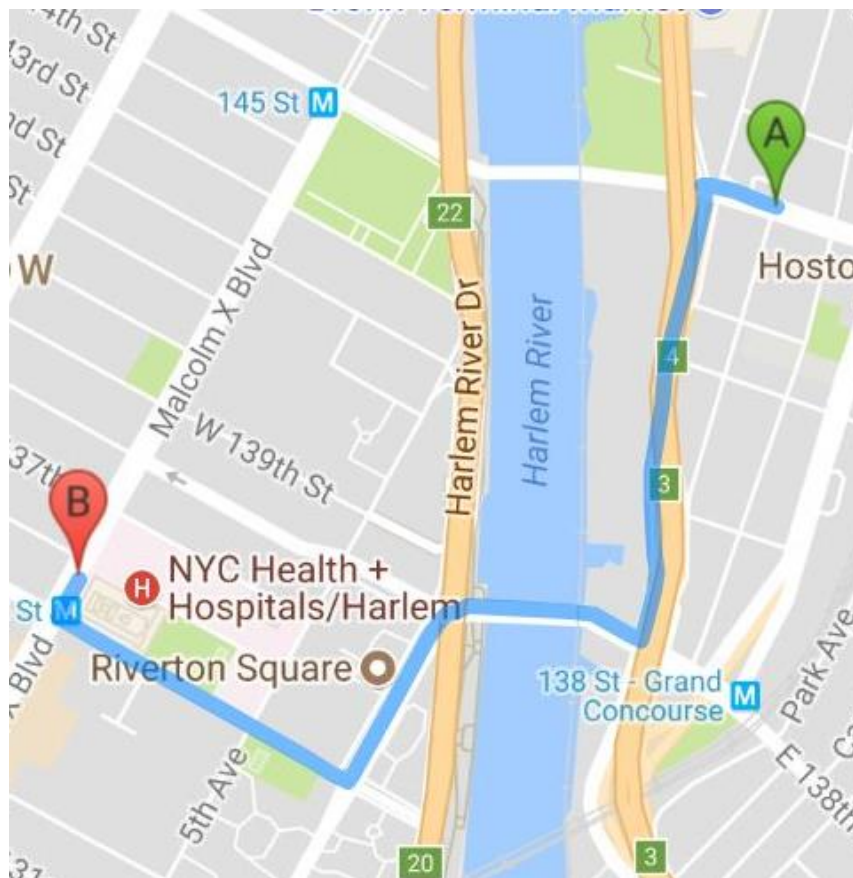
FIGURE 2 HOSPITAL ROUTE PLAN

**Hospital Location: Harlem Hospital Center
506 Lenox Avenue
New York, New York
212-939-1000**

START: Gerard Avenue and East 149th Street, Bronx, NY

1. Head west on East 149th Street toward River Avenue
2. Turn left onto Exterior Street
3. Turn right onto East 138th Street/Madison Avenue Bridge
4. Slight left onto Madison Avenue Bridge
5. Madison Avenue Bridge turns right and becomes East 135th Street
6. Turn right onto Lenox Avenue/Malcolm X Boulevard, destination will be on the right.

END: Harlem Hospital Center, 506 Lenox Avenue, New York, NY



ATTACHMENT A

STANDING ORDERS

STANDING ORDERS

GENERAL

- No smoking, eating, or drinking in this work zone.
- Upon leaving the work zone, personnel will thoroughly wash their hands and face.
- Minimize contact with contaminated materials through proper planning of work areas and decontamination areas, and by following proper procedures. Do not place equipment on the ground. Do not sit on contaminated materials.
- No open flames in the work zone.
- Only properly trained and equipped personnel are permitted to work in potentially contaminated areas.
- Always use the appropriate level of personal protective equipment (PPE).
- Maintain close contact with your buddy in the work zone
- Contaminated material will be contained in the Exclusion Zone (EZ).
- Report any unusual conditions.
- Work areas will be kept clear and uncluttered. Debris and other slip, trip, and fall hazards will be removed as frequently as possible.
- The number of personnel and equipment in the work zone will be kept to an essential minimum.
- Be alert to the symptoms of fatigue and heat/cold stress, and their effects on the normal caution and judgment of personnel.
- Conflicting situations which may arise concerning safety requirements and working conditions must be addressed and resolved quickly by the site HSO.

TOOLS AND HEAVY EQUIPMENT

- Do not, under any circumstances, enter or ride in or on any backhoe bucket, materials hoist, or any other device not specifically designed to carrying passengers.
- Loose-fitting clothing or loose long hair is prohibited around moving machinery.
- Ensure that heavy equipment operators and all other personnel in the work zone are using the same hand signals to communicate.
- Drilling/excavating within 10 feet in any direction of overhead power lines is prohibited.
- The locations of all underground utilities must be identified and marked out prior to initiating any subsurface activities.
- Check to insure that the equipment operator has lowered all blades and buckets to the ground before shutting off the vehicle.
- If the equipment has an emergency stop device, have the operator show all personnel its location and how to activate it.
- Help the operator ensure adequate clearances when the equipment must negotiate in tight quarters; serve as a signalman to direct backing as necessary.
- Ensure that all heavy equipment that is used in the Exclusion Zone is kept in that zone until the job is done, and that such equipment is completely decontaminated before moving it into the clean area of the work zone.
- Samplers must not reach into or get near rotating equipment such as the drill rig. If personnel must work near any tools that could rotate, the equipment operator must completely shut down the rig prior to initiating such work. It may be necessary to use a remote sampling device.

ATTACHMENT B

DECONTAMINATION PROCEDURES

PERSONNEL DECONTAMINATION

LEVEL C DECONTAMINATION

Station 1:	Equipment Drop	1. Deposit equipment used on-site (tools, sampling devices and containers, monitoring instruments, radios, clipboards, etc.) on plastic drop cloths. Segregation at the drop reduces the probability of cross contamination. During hot weather operations, cool down stations may be set up within this area.
Station 2:	Outer Garment, Boots, and Gloves Wash and Rinse	2. Scrub outer boots, outer gloves and chemical-resistant splash suit with decon solution or detergent and water. Rinse off using copious amounts of water.
Station 3:	Outer Boot and Glove Removal	3. Remove outer boots and gloves. Deposit in container with plastic liner.
Station 4:	Canister or Mask Change	4. If worker leaves Exclusion Zone to change canister (or mask), this is the last step in the decontamination procedure. Worker's canister is exchanged, new outer gloves and boot covers donned, joints taped, and worker returns to duty.
Station 5:	Boot, Gloves and Outer Garment Removal	5. Boots, chemical-resistant splash suit, inner gloves removed and deposited in separate containers lined with plastic.
Station 6:	Face piece Removal	6. Face piece is removed (avoid touching face with fingers). Face piece deposited on plastic sheets.
Station 7:	Field Wash	7. Hands and face are thoroughly washed. Shower as soon as possible.

LEVEL D DECONTAMINATION

Station 1:	Equipment Drop	1. Deposit equipment used on-site (tools, sampling devices and containers, monitoring instruments, radios, clipboards, etc.) on plastic drop cloths. Segregation at the drop reduces the probability of cross contamination. During hot weather operations, cool down stations may be set up within this area.
Station 2:	Outer Garment, Boots, and Gloves Wash and Rinse	2. Scrub outer boots, outer gloves and chemical-resistant splash suit with decon solution or detergent and water. Rinse off using copious amounts of water.
Station 3:	Outer Boot and Glove Removal	3. Remove outer boots and gloves. Deposit in container with plastic liner.
Station 4:	Boot, Gloves and Outer Garment Removal	4. Boots, chemical-resistant splash suit, inner gloves removed and deposited in separate containers lined with plastic.
Station 5:	Field Wash	5. Hands and face are thoroughly washed. Shower as soon as possible.

EQUIPMENT DECONTAMINATION

GENERAL:

Equipment to be decontaminated during the project may include tools, monitoring equipment, respirators, sampling containers, laboratory equipment and drilling equipment.

All decontamination will be done by personnel in protective gear, appropriate for the level of decontamination, as determined by the site HSO. The decontamination work tasks will be split or rotated among support and work crews.

Depending on site conditions, backhoe and pumps may be decontaminated over a portable decontamination pad to contain wash water; or, wash water may be allowed to run off into a storm sewer system. Equipment needed may include a steam generator with high-pressure water, empty drums, screens, screen support structures, and shovels. Drums will be used to hold contaminated wash water pumped from the lined pit. These drums will be labeled as such.

Miscellaneous tools and equipment will be dropped into a plastic pail, tub, or other container. They will be brushed off and rinsed with a detergent solution, and finally rinsed with clean water.

MONITORING EQUIPMENT:

Monitoring equipment will be protected as much as possible from contamination by draping, masking, or otherwise covering as much of the instruments as possible with plastic without hindering the operation of the unit. The PID, HNu or OVA meter, for example, can be placed in a clear plastic bag, which allows reading of the scale and operation of knobs. The probes can be partially wrapped keeping the sensor tip and discharge port clear.

The contaminated equipment will be taken from the drop area and the protective coverings removed and disposed in the appropriate containers. Any dirt or obvious contamination will be brushed or wiped with a disposable paper wipe.

RESPIRATORS:

Respirators will be cleaned and disinfected after every use. Taken from the drop area, the masks (with the cartridges removed and disposed of with other used disposable gear) will be immersed in a cleaning solution and scrubbed gently with a soft brush, followed by a rinse in plain warm water, and then allowed to air dry. In the morning, new cartridges will be installed. Personnel will inspect their own masks for serviceability prior to donning them. And, once the mask is on, the wearer will check the respirator for leakage using the negative and positive pressure fit check techniques.

ATTACHMENT C

EMPLOYEE EXPOSURE/ INJURY INCIDENT REPORT

EMPLOYEE INCIDENT/INJURY REPORT LANGAN ENGINEERING & ENVIRONMENTAL SERVICES

(Complete and return to Tony Moffa in the Doylestown Office)

Affected Employee Name: _____

Date: _____

Incident type: Injury Report Only/No Injury
 Near Miss Other: _____

EMPLOYEE INFORMATION (Person completing Form)

Employee Name: _____

Employee

No: _____

Title: _____

Office

Location: _____

Length of time employed or date of hire: _____

Mailing address: _____

Sex: M F Birth date: _____

Business phone & extension: _____

Residence/cell

phone: _____

ACCIDENT INFORMATION

Project: _____

Project

#: _____

Date & time of incident: _____ Time work started & ended: _____

Site location: _____

Incident Type: Possible Exposure Exposure Physical Injury

Names of person(s) who witnessed the incident: _____

Exact location incident occurred: _____

Describe work being done: _____

Describe what affected employee was doing prior to the incident occurring: _____

Describe in detail how the incident occurred: _____

Nature of the incident (List the parts of the body affected): _____

Person(s) to whom incident was reported (Time and Date): _____

List the names of other persons affected during this incident: _____

Possible causes of the incident (equipment, unsafe work practices, lack of PPE, etc.):

Weather conditions during incident:

MEDICAL CARE INFORMATION

Did affected employee receive medical care? Yes No

If Yes, when and where was medical care received: _____

Provide name of facility (hospital, clinic, etc.): _____

Length of stay at the facility? _____

Did the employee miss any work time? Yes No Undetermined

Date employee last worked: _____ Date employee returned to work: _____

Has the employee returned to work? Yes No

Does the employee have any work limitations or restrictions from the injury? : Yes No

If Yes, please describe: _____

Did the exposure/injury result in permanent disability? Yes No Unknown

If Yes, please describe: _____

HEALTH & SAFETY INFORMATION

Was the operation being conducted under an established site specific CONSTRUCTION HEALTH AND SAFETY PLAN?

Yes No Not Applicable:

Describe protective equipment and clothing used by the employee:

Did any limitations in safety equipment or protective clothing contribute to or affect exposure / injury? If so, explain:

Employee Signature

Date

Langan Representative

Date

ATTACHMENT D

CALIBRATION LOG

ATTACHMENT E

MATERIAL SAFETY DATA SHEETS

SAFETY DATA SHEETS

All Langan Field Personnel Completing This Work Plan Are To Have Real Time Accessibility To Material Safety Data Sheet (MSDs) or Safety Data Sheet (SDSs) Through Their Smart Phone.

*The link is <http://www.msds.com/>
The login name is "drapehead"
The password is "2angan987"*

If You Are Unable To Use the Smart Phone App, You Are To Bring Printed Copies of the MSDs/SDSs to the Site

ATTACHMENT F

JOBSITE SAFETY INSPECTION CHECKLIST

Jobsite Safety Inspection Checklist

Date: _____ **Inspected By:** _____

Location: _____ **Project #:** _____

Check one of the following: **A:** Acceptable **NA:** Not Applicable **D:** Deficiency

	A	NA	D	Remark
1. HASP available onsite for inspection?				
2. Health & Safety Compliance agreement (in HASP) appropriately signed by Langan employees and contractors?				
3. Hospital route map with directions posted on site?				
4. Emergency Notification List posted on site?				
5. First Aid kit available and properly stocked?				
6. Personnel trained in CPR/First Aid on site?				
7. MSDSs readily available, and all workers knowledgeable about the specific chemicals and compounds to which they may be exposed?				
8. Appropriate PPE being worn by Langan employees and contractors?				
9. Project site safe practices ("Standing Orders") posted?				
10. Project staff have 40-hr./8-hr./Supervisor HAZWOPER training?				
11. Project staff medically cleared to work in hazardous waste sites and fit-tested to wear respirators, if needed?				
12. Respiratory protection readily available?				
13. Health & Safety Incident Report forms available?				
14. Air monitoring instruments calibrated daily and results recorded on the Daily Instrument Calibration check sheet?				
15. Air monitoring readings recorded on the air monitoring data sheet/field log book?				
16. Subcontract workers have received 40-hr./8-hr./Spvsr. HAZWOPER training, as appropriate?				
17. Subcontract workers medically cleared to work on site, and fit-tested for respirator wear?				
18. Subcontract workers have respirators readily available?				
19. Mark outs of underground utilities done prior to initiating any subsurface activities?				
20. Decontamination procedures being followed as outlined in HASP?				
21. Are tools in good condition and properly used?				
22. Drilling performed in areas free from underground objects including utilities?				

23. Adequate size/type fire extinguisher supplied?				
24. Equipment at least 20 feet from overhead powerlines?				
25. Evidence that drilling operator is responsible for the safety of his rig.				
26. Trench sides shored, layer back, or boxed?				
27. Underground utilities located and authorities contacted before digging?				
28. Ladders in trench (25-foot spacing)?				
29. Excavated material placed more than 2 feet away from excavation edge?				
30. Public protected from exposure to open excavation?				
31. People entering the excavation regarding it as a permit-required confined space and following appropriate procedures?				
32. Confined space entry permit is completed and posted?				
33. All persons knowledgeable about the conditions and characteristics of the confined space?				
34. All persons engaged in confined space operations have been trained in safe entry and rescue (non-entry)?				
35. Full body harnesses, lifelines, and hoisting apparatus available for rescue needs?				
36. Attendant and/or supervisor certified in basic first aid and CPR?				
37. Confined space atmosphere checked before entry and continuously while the work is going on?				
38. Results of confined space atmosphere testing recorded?				
39. Evidence of coordination with off-site rescue services to perform entry rescue, if needed?				
40. Are extension cords rated for this work being used and are they properly maintained?				
41. Are GFCIs provided and being used?				

Unsafe Acts: _____

Notes: _____

ATTACHMENT G

JOB SAFETY ANALYSIS FORM



Job Safety Analysis (JSA) Health and Safety

JSA TITLE:

DATE CREATED:

CREATED BY:

JSA NUMBER:

REVISION DATE:

REVISED BY:

Langan employees must review and revise the Job Safety Analysis (JSA) as needed to address the any site specific hazards not identified. Employees must provide their signatures on the last page of the JSA indicating they have review the JSA and are aware the potential hazards associated with this work and will follow the provided preventive or corrective measures.

PERSONAL PROTECTIVE EQUIPMENT REQUIRED: (PPE): Required As Needed

- | | | |
|---|--|--|
| <input type="checkbox"/> Steel-toed boots | <input type="checkbox"/> Nitrile gloves | <input type="checkbox"/> Dermal Protection (Specify) |
| <input type="checkbox"/> Long-sleeved shirt | <input type="checkbox"/> Leather/ Cut-resistant gloves | <input type="checkbox"/> High visibility vest/clothing |
| <input type="checkbox"/> Safety glasses | <input type="checkbox"/> Face Shield | <input type="checkbox"/> Hard hat |

ADDITIONAL PERSONAL PROTECTIVE EQUIPMENT NEEDED (Provide specific type(s) or descriptions)

- Air Monitoring: Respirators: Other:

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE OR CORRECTIVE ACTION
1.	1. 2.	1a. 1b. 2a. 2b.
2.	1.	1
Additional items identified in the field.		
Additional Items.		

If additional items are identified during daily work activities, please notify all relevant personnel about the change and document on this JSA.



Job Safety Analysis (JSA) Health and Safety

JSA Title: Subsurface Investigation

JSA Number: JSA030-01

A Job Safety Analysis (JSA) must identify all job steps required to complete the task, the potential hazards employees could be exposed to while performing the job step and the preventative/corrective actions required to reduce/mitigate the identified potential hazards. Employees must certify that they have either prepared the JSA or have reviewed the JSA and are aware of the potential hazards associated with this task and will follow the provided preventive/corrective actions.

PERSONAL PROTECTIVE EQUIPMENT (Required or to be worn as needed):

<input checked="" type="checkbox"/> Safety Shoes	<input checked="" type="checkbox"/> Long Sleeves	<input checked="" type="checkbox"/> Safety Vest (Class 2)	<input checked="" type="checkbox"/> Hard Hat	<input checked="" type="checkbox"/> Hearing Protection
<input checked="" type="checkbox"/> Safety Glasses	<input checked="" type="checkbox"/> Safety Goggles	<input type="checkbox"/> Face Shield	<input type="checkbox"/> Nitrile Gloves	<input type="checkbox"/> PVC Gloves
<input checked="" type="checkbox"/> Leather Gloves	<input checked="" type="checkbox"/> Cut Resist. Gloves	<input type="checkbox"/> Fall Protection	<input type="checkbox"/> Fire Resistant Clothing	<input type="checkbox"/> Rubber Boots
<input type="checkbox"/> Insect/Animal Repellent	<input type="checkbox"/> Ivy Blocker/Cleaner	<input type="checkbox"/> Traffic Cones/Signs	<input type="checkbox"/> Life Vest/Jacket	
<input checked="" type="checkbox"/> Other: Dielectric Overshoes, Sun Block				

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
1. Transport equipment to work area	1. Back/strain 2. Slip/Trip/Falls 3. Traffic 4. Cuts/abrasions/contusions from equipment 5. Accidents due to vehicle operations	1. Use proper lifting techniques/Use wheeled transport 2. Minimize distance to work area/unobstructed path to work area/follow good housekeeping procedures 3. Wear proper PPE (high visibility vest or clothing) 4. Wear proper PPE (leather gloves, long sleeves, Langan approved safety shoes) 5. Observe posted speed limits/ Wear seat belts at all times
2. Traffic	1. Hit by moving vehicle	1. Use traffic cones and signage/ Use High visibility traffic vests and clothing/ Caution tape when working near active roadways.
3. Field Work (drilling, resistivity testing, and inspection)	1. Biological Hazards: insects, rats, snakes, poisonous plants, and other animals 2. Heat stress/injuries 3. Cold Stress/injuries 4. High Energy Transmission Lines 5. Underground Utilities 6. Electrical (soil resistivity testing)	1. Inspect work area to identify biological hazards. Wear light colored long sleeve shirt and long pants/ Use insect repellent as necessary/ Beware of tall grass, bushes, woods and other areas where ticks may live/ Avoid leaving garbage on site to prevent attracting animals/ Identify and avoid contact with poisonous plants/Beware of rats, snakes, or stray animals. 2. Wear proper clothing (light colored)/ drink plenty of water/ take regular breaks/use sun block 3. Wear proper clothing/ dress in layers/ take regular breaks. 4. Avoid direct contact with high energy transmission lines/ position equipment at least 15 feet or as required by PSE&G from the transmission lines/ wear proper PPE (dielectric overshoes 15 kV minimum rating). 5. Call one-call service before performing intrusive field work/ Review utility mark-outs and available utility drawings (with respect to proposed work locations)/ Follow Underground Utility Guidelines

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
		6. See AGI Sting R1 operating manual for specific concerns during operating instrument
4.All activities	1. Slips/ Trips/ Falls 2. Hand injuries, cuts or lacerations during manual handling of materials 3. Foot injuries 4. Back injuries 5. Traffic 6. Wildlife: Stray dogs, Mice/rats, Vectors (i.e. mosquitoes, bees, etc.) 7. High Noise levels 8. Overhead hazards 9. Heat Stress/ Cold Stress 10. Eye Injuries	7. Be aware of potential trip hazards / Follow good housekeeping procedures/ Mark significant hazards 8. Inspect for jagged/sharp edges, and rough or slippery surfaces / Keep fingers away from pinch points / Wipe off greasy, wet, slippery or dirty objects before handling / Wear leather/ cut-resistant gloves 9. Wear Langan approved safety shoes 10. Use proper lifting techniques / Consider load location, task repetition, and load weigh when evaluating what is safe or unsafe to lift / Obtain assistance when possible 11. Wear high visibility clothing & vest / Use cones or signs to designate work area 12. Be aware of surroundings at all times, including the presence of wildlife/ Do not approach stray dogs / Carry/use dog/animal repellent / Use bug spray when needed 13. Wear proper hearing protection 14. Wear hard hat / Avoid areas where overhead hazards exist. 15. Wear proper attire for weather conditions (sunscreen or protective clothing in sunlight, layers for cold weather) / Drink plenty of fluids to avoid dehydration / Takes breaks as necessary to avoid heat/cold stress 16. Wear safety glasses
Additional items.		
Additional Items identified while in the field. (Delete row if not needed.)		

<u>Print Name</u>	<u>Sign Name</u>	<u>Date</u>
<u>Prepared by:</u>		
<u>Reviewed by:</u>		



Job Safety Analysis (JSA) Health and Safety

JSA Title: Field Sampling

JSA Number: JSA022-01

A Job Safety Analysis (JSA) must identify all job steps required to complete the task, the potential hazards employees could be exposed to while performing the job step and the preventative/corrective actions required to reduce/mitigate the identified potential hazards. Employees must certify that they have either prepared the JSA or have reviewed the JSA and are aware of the potential hazards associated with this task and will follow the provided preventive/corrective actions.

PERSONAL PROTECTIVE EQUIPMENT (Required or to be worn as needed):

<input checked="" type="checkbox"/> Safety Shoes	<input checked="" type="checkbox"/> Long Sleeves	<input type="checkbox"/> Safety Vest (Class 2)	<input checked="" type="checkbox"/> Hard Hat	<input checked="" type="checkbox"/> Hearing Protection
<input checked="" type="checkbox"/> Safety Glasses	<input type="checkbox"/> Safety Goggles	<input type="checkbox"/> Face Shield	<input checked="" type="checkbox"/> Nitrile Gloves	<input type="checkbox"/> PVC Gloves
<input checked="" type="checkbox"/> Leather Gloves	<input type="checkbox"/> Cut Resist. Gloves	<input type="checkbox"/> Fall Protection	<input type="checkbox"/> Fire Resistant Clothing	<input type="checkbox"/> Rubber Boots
<input type="checkbox"/> Insect/Animal Repellent	<input type="checkbox"/> Ivy Blocker/Cleaner	<input checked="" type="checkbox"/> Traffic Cones/Signs	<input type="checkbox"/> Life Vest/Jacket	
<input type="checkbox"/> Other: _____				

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
5. Unpack/Transport equipment to work area.	6. Back Strains 7. Slip/Trips/Falls 8. Cuts/Abrasions from equipment 9. Contusions from dropped equipment	6. Use proper lifting techniques/Use wheeled transport 7. Minimize distance to work area/Unobstructed path to work area/follow good housekeeping procedures. Mark slip/trip/fall hazards with orange safety cones. 8. Wear proper PPE (leather gloves, long sleeves). 9. Wear proper PPE (Langan approved safety shoes).
6. Initial Site Arrival-Site Assessment	1. Traffic	1. Situational awareness (be alert of your surroundings). Secure area from through traffic.
7. Surface Water Sampling	1. Contaminated media. Skin/eye contact with biological agents and/or chemicals.	1. Wear appropriate PPE (Safety glasses, appropriate gloves). Review (M)SDS for all chemicals being.
8. Sampling from bridges	1. Struck by vehicles	1. Wear appropriate PPE (Safety Vest). Use buddy system and orange safety cones.
9. Icing of Samples/ Transporting coolers/equipment from work area.	11. Back Strains 12. Slips/Trips/Falls 13. Cuts/Abrasions from equipment 14. Pinch/Crushing Hazards.	17. Drain coolers of water. Use proper lifting techniques. Use wheeled transport. 18. Have unobstructed path from work area. Aware of surroundings. 19. Wear proper PPE (Leather gloves, long sleeves) 20. Wear proper PPE (Leather gloves, long sleeves)
10. Site Departure	1. Contaminated PPE/Vehicle	1. Contaminated PPE should be disposed of on-site. Remove boots and soiled clothing for secure storage in trunk. Wash hands promptly.
11. All activities	1. Slips/ Trips/ Falls 2. Hand injuries, cuts or lacerations during manual handling of materials	1. Be aware of potential trip hazards / Follow good housekeeping procedures/ Mark significant hazards

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
	3. Foot injuries 4. Back injuries 15. Traffic 16. Wildlife: Stray dogs, Mice/rats, Vectors (i.e. mosquitoes, bees, etc.) 17. High Noise levels 18. Overhead hazards 19. Heat Stress/ Cold Stress 20. Eye Injuries	2. Inspect for jagged/sharp edges, and rough or slippery surfaces / Keep fingers away from pinch points / Wipe off greasy, wet, slippery or dirty objects before handling / Wear leather/ cut-resistant gloves 3. Wear Langan approved safety shoes 4. Use proper lifting techniques / Consider load location, task repetition, and load weigh when evaluating what is safe or unsafe to lift / Obtain assistance when possible 21. Wear high visibility clothing & vest / Use cones or signs to designate work area 22. Be aware of surroundings at all times, including the presence of wildlife/ Do not approach stray dogs / Carry/use dog/animal repellent / Use bug spray when needed 23. Wear hearing protection 24. Wear hard hat / Avoid areas where overhead hazards exist. 25. Wear proper attire for weather conditions (sunscreen or protective clothing in sunlight, layers for cold weather) / Drink plenty of fluids to avoid dehydration / Take breaks as necessary to avoid heat/cold stress 26. Wear safety glasses
Additional items.		
Additional Items identified while in the field. (Delete row if not needed.)		

<u>Print Name</u>	<u>Sign Name</u>	<u>Date</u>
<u>Prepared by:</u>		
<u>Reviewed by:</u>		

JSA Title: Equipment Transportation and Set-Up

JSA Number: JSA012-01

A Job Safety Analysis (JSA) must identify all job steps required to complete the task, the potential hazards employees could be exposed to while performing the job step and the preventative/corrective actions required to reduce/mitigate the identified potential hazards. Employees must certify that they have either prepared the JSA or have reviewed the JSA and are aware of the potential hazards associated with this task and will follow the provided preventive/corrective actions.

PERSONAL PROTECTIVE EQUIPMENT (Required or to be worn as needed):

<input checked="" type="checkbox"/> Safety Shoes	<input checked="" type="checkbox"/> Long Sleeves	<input checked="" type="checkbox"/> Safety Vest (Class 2)	<input checked="" type="checkbox"/> Hard Hat	<input checked="" type="checkbox"/> Hearing Protection
<input checked="" type="checkbox"/> Safety Glasses	<input type="checkbox"/> Safety Goggles	<input type="checkbox"/> Face Shield	<input type="checkbox"/> Nitrile Gloves	<input type="checkbox"/> PVC Gloves
<input checked="" type="checkbox"/> Leather Gloves	<input type="checkbox"/> Cut Resist. Gloves	<input type="checkbox"/> Fall Protection	<input type="checkbox"/> Fire Resistant Clothing	<input type="checkbox"/> Rubber Boots
<input type="checkbox"/> Insect/Animal Repellent	<input type="checkbox"/> Ivy Blocker/Cleaner	<input type="checkbox"/> Traffic Cones/Signs	<input type="checkbox"/> Life Vest/Jacket	
<input type="checkbox"/> Other:				

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
12. Transport equipment to work area	10. Back Strain 11. Slips/ Trips/ Falls 12. Traffic 13. Cuts/abrasions from equipment 14. Contusions from dropped equipment	1. Use proper lifting techniques / Use wheeled transport 2. Minimize distance to work area / Have unobstructed path to work area / Follow good housekeeping procedures 3. Wear proper PPE (high visibility vest or clothing) 4. Wear proper PPE (leather gloves, long sleeves) 5. Wear proper PPE (safety shoes)
13. Moving equipment to its planned location	2. Pinch Hazard 3. Slips/ Trips/ Falls	1. Wear proper PPE (leather gloves) 2. Be aware of potential trip hazards / Practice good housekeeping procedures / Mark significant below-grade hazards (i.e. holes, trenches) with safety cones or spray paint
14. Equipment Set-up	2. Pinch Hazard 3. Cuts/abrasions to knuckles/hands 4. Back Strain	1. Wear proper PPE (leather gloves) 2. Wear proper PPE (leather gloves) 3. Use proper lifting techniques / Use wheeled transport
15. All activities	21. Slips/ Trips/ Falls 22. Hand injuries, cuts or lacerations during manual handling of materials 23. Foot injuries 24. Back injuries 25. Traffic 26. Wildlife: Stray dogs, Mice/rats, Vectors (i.e. mosquitoes, bees, etc.) 27. High Noise levels 28. Overhead hazards 29. Heat Stress/ Cold Stress 30. Eye Injuries	27. Be aware of potential trip hazards / Follow good housekeeping procedures/ Mark significant hazards 28. Inspect for jagged/sharp edges, and rough or slippery surfaces / Keep fingers away from pinch points / Wipe off greasy, wet, slippery or dirty objects before handling / Wear leather/ cut-resistant gloves 29. Wear Langan approved safety shoes 30. Use proper lifting techniques / Consider load location, task repetition, and load weigh when evaluating what is safe or unsafe to lift / Obtain assistance when possible 31. Wear high visibility clothing & vest / Use cones or signs to designate work area

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
4. All activities (cont'd)		32. Be aware of surroundings at all times, including the presence of wildlife/ Do not approach stray dogs / Carry/use dog/animal repellent / Use bug spray when needed 33. Wear hearing protection 34. Wear hard hat / Avoid areas where overhead hazards exist. 35. Wear proper attire for weather conditions (sunscreen or protective clothing in sunlight, layers for cold weather) / Drink plenty of fluids to avoid dehydration / Takes breaks as necessary to avoid heat/cold stress 36. Wear safety glasses
Additional items.		
Additional Items identified while in the field. (Delete row if not needed.)		

<u>Print Name</u>	<u>Sign Name</u>	<u>Date</u>
<u>Prepared by:</u>		
<u>Reviewed by:</u>		



Job Safety Analysis (JSA) Health and Safety

JSA Title: 55-gallon Drum Sampling

JSA Number: JSA043-01

A Job Safety Analysis (JSA) must identify all job steps required to complete the task, the potential hazards employees could be exposed to while performing the job step and the preventative/corrective actions required to reduce/mitigate the identified potential hazards. Employees must certify that they have either prepared the JSA or have reviewed the JSA and are aware of the potential hazards associated with this task and will follow the provided preventive/corrective actions.

PERSONAL PROTECTIVE EQUIPMENT (Required or to be worn as needed):

<input checked="" type="checkbox"/> Safety Shoes	<input checked="" type="checkbox"/> Long Sleeves	<input checked="" type="checkbox"/> Safety Vest (Class 2)	<input checked="" type="checkbox"/> Hard Hat	<input type="checkbox"/> Hearing Protection
<input checked="" type="checkbox"/> Safety Glasses	<input checked="" type="checkbox"/> Safety Goggles	<input checked="" type="checkbox"/> Face Shield	<input checked="" type="checkbox"/> Nitrile Gloves	<input checked="" type="checkbox"/> PVC Gloves
<input checked="" type="checkbox"/> Leather Gloves	<input type="checkbox"/> Cut Resist. Gloves	<input type="checkbox"/> Fall Protection	<input type="checkbox"/> Fire Resistant Clothing	<input type="checkbox"/> Rubber Boots
<input type="checkbox"/> Insect/Animal Repellent	<input type="checkbox"/> Ivy Blocker/Cleaner	<input type="checkbox"/> Traffic Cones/Signs	<input type="checkbox"/> Life Vest/Jacket	

Other: All Drums are required to be labeled. Langan employees do not open or move undocumented drums or unlabeled drums without proper project manager authorization.

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
16. Unpack/Transport equipment to work area.	15. Back Strains 16. Slip/Trips/Falls 17. Cuts/Abrasions from equipment 4. Contusions from dropped equipment	10. Use proper lifting techniques/Use wheeled transport 11. Minimize distance to work area/Unobstructed path to work area/follow good housekeeping procedures. Mark slip/trip/fall hazards with orange safety cones. 12. Wear proper PPE (leather gloves, long sleeves). 4. Wear proper PPE (Langan approved safety shoes).
17. Open Drums	1. Hand Injuries, cuts or lacerations when untightening drum locking bolt, removing drum lid strap, or removing lid. 2. Pressure from drums.	1. Inspect for jagged/sharp edges, and rough or slippery surfaces / Keep fingers away from pinch points / Wipe off greasy, wet, slippery or dirty objects before handling / Wear leather/ cut-resistant gloves. Use non-metallic mallet and non-sparking tools/wrenches. 2. Open drum slowly to relieve pressure. Wear proper PPE: face shield and goggles; correct gloves; and over garments.
18. Collecting Soil/Fluid Sample	4. Irritation to eye from vapor, soil dust, or splashing 5. Irritation to exposed skin	2. Wear proper eye protection including safety glasses/ face shield/goggles and when necessary, splash guard. If dust or vapor phase is present, wear appropriate safety breathing gear (1/2 mask or full face mask with correct filter) 3. Wear proper skin protection including nitrile gloves.
19. Closing Drums	1. Hand Injuries, cuts or lacerations when untightening drum locking bolt, removing drum lid strap, or removing lid.	2. Inspect for jagged/sharp edges, and rough or slippery surfaces / Keep fingers away from pinch points / Wipe off greasy, wet, slippery or dirty objects before handling / Wear leather/ cut-resistant gloves. Use non-metallic mallet and non-sparking tools/wrenches.
20. Moving Drums	2. Hand Injuries, cuts or lacerations when untightening drum locking bolt, removing drum lid strap, or removing lid. 3. Back Strains	2. Inspect for jagged/sharp edges, and rough or slippery surfaces / Keep fingers away from pinch points / Wipe off greasy, wet, slippery or dirty objects before handling / Wear leather/ cut-resistant gloves. Use non-metallic mallet and non-sparking tools/wrenches. 3. Use proper lifting techniques/Use wheeled transport

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
21. All activities	31. Slips/ Trips/ Falls 32. Hand injuries, cuts or lacerations during manual handling of materials 33. Foot injuries 34. Back injuries 35. Traffic 36. Wildlife: Stray dogs, Mice/rats, Vectors (i.e. mosquitoes, bees, etc.) 37. High Noise levels 38. Overhead hazards 39. Heat Stress/ Cold Stress 40. Eye Injuries	37. Be aware of potential trip hazards / Follow good housekeeping procedures/ Mark significant hazards 38. Inspect for jagged/sharp edges, and rough or slippery surfaces / Keep fingers away from pinch points / Wipe off greasy, wet, slippery or dirty objects before handling / Wear leather/ cut-resistant gloves 39. Wear Langan approved safety shoes 40. Use proper lifting techniques / Consider load location, task repetition, and load weigh when evaluating what is safe or unsafe to lift / Obtain assistance when possible 41. Wear high visibility clothing & vest / Use cones or signs to designate work area 42. Be aware of surroundings at all times, including the presence of wildlife/ Do not approach stray dogs / Carry/use dog/animal repellant / Use bug spray when needed 43. Wear hearing protection 44. Wear hard hat / Avoid areas were overhead hazards exist. 45. Wear proper attire for weather conditions (sunscreen or protective clothing in sunlight, layers for cold weather) / Drink plenty of fluids to avoid dehydration / Takes breaks as necessary to avoid heat/cold stress 46. Wear safety glasses
Additional items.		
Additional Items identified while in the field. (Delete row if not needed.)		

<u>Print Name</u>	<u>Sign Name</u>	<u>Date</u>
<u>Prepared by:</u>		
<u>Reviewed by:</u>		



**Job Safety Analysis (JSA)
Health and Safety**

JSA Title: Direct-Push Soil Borings
JSA Number: JSA004-01

A Job Safety Analysis (JSA) must identify all job steps required to complete the task, the potential hazards employees could be exposed to while performing the job step and the preventative/corrective actions required to reduce/mitigate the identified potential hazards. Employees must certify that they have either prepared the JSA or have reviewed the JSA and are aware of the potential hazards associated with this task and will follow the provided preventive/corrective actions.

PERSONAL PROTECTIVE EQUIPMENT REQUIRED:

<input checked="" type="checkbox"/> Safety Shoes	<input checked="" type="checkbox"/> Long Sleeves	<input checked="" type="checkbox"/> Safety Vest (Class 2)	<input checked="" type="checkbox"/> Hard Hat	<input checked="" type="checkbox"/> Hearing Protection
<input checked="" type="checkbox"/> Safety Glasses	<input type="checkbox"/> Safety Goggles	<input type="checkbox"/> Face Shield	<input checked="" type="checkbox"/> Nitrile Gloves	<input type="checkbox"/> PVC Gloves
<input checked="" type="checkbox"/> Leather Gloves	<input checked="" type="checkbox"/> Cut Resist. Gloves	<input type="checkbox"/> Fall Protection	<input type="checkbox"/> Fire Resistant Clothing	<input type="checkbox"/> Rubber Boots
<input type="checkbox"/> Insect/Animal Repellent	<input type="checkbox"/> Ivy Blocker/Cleaner	<input type="checkbox"/> Traffic Cones/Signs	<input type="checkbox"/> Life Vest/Jacket	
<input checked="" type="checkbox"/> Other: Half-face respirator, dust cartridges, PID (if applicable)				

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
22. Move equipment to work site	18. Back strain when lifting equipment 19. Slips/ Trips/ Falls while moving equipment 20. Traffic (if applicable) 21. Pinched fingers or running over toes during geoprobe set-up 22. Overturn drilling rig while transporting to loading dock on flat-bed tow truck	13. Use proper lifting technique (use legs for bending and lifting and not the back)/ Use wheeled transport for heavy equipment / Get assistance when handling loads greater than 50 lbs. / Minimize distance to vehicle 14. Use proper lifting technique (use legs for bending and lifting and not the back) / Use wheeled transport for heavy equipment / Get assistance when handling loads greater than 50 lbs. / Minimize distance to vehicle / Have unobstructed path to vehicle or collection point / Do not lift/walk with boxes that are heavy/difficult to lift 15. Wear high visibility safety vests or clothing / Exercise caution 16. Wear proper PPE (cut-resistant gloves) / Stay alert, be aware of geoprobe rig at all times 17. Drill rig should be parked in center of flat-bed tow truck / Emergency brake shall be used at all times during transport on the flat-bed truck/ All unnecessary personnel should stay away from the flat-bed truck during moving activities
23. Calibration of monitoring equipment	6. Skin or eye contact with calibration chemicals 7. Pinch fingers in monitoring equipment	4. Wear proper PPE (safety glasses/ goggles) 5. Wear proper PPE (leather gloves)
24. Set-up geoprobe rig	5. Geoprobe rig movement	3. All field personnel should stay clear of the geoprobe rig while moving / Use a spotter when backing up the geoprobe
25. Advance geoprobe rods below ground surface to desired depth	4. Underground utilities 5. High noise levels	4. Clean all subsurface soil borings to a minimum of 5 feet below grade 5. Wear proper PPE (hearing protection)
26. Remove and open acetate liner	41. Pinched fingers while removing macrocore 42. Cuts/lacerations when cutting acetate liner open 43. Exposure to hazardous vapors	1. Wear proper PPE (nitrile gloves, cut-resistant or leather gloves) 2. Wear proper PPE (cut-resistant or leather gloves) 3. Do not place face over acetate liner when opening / Monitor hazardous vapors in air with PID / Upgrade PPE as necessary based on levels contained in the Health and Safety Plan

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
5. Remove and open acetate liner (cont'd)	44. Skin contact with contaminated soil	4. Wear proper PPE (nitrile gloves)
27. Sample Collections a) Monitor parameters b) Prepare sample containers and labels	1. Contact with potentially contaminated soil 2. Lacerations from broken sample bottles 3. Back strain while transporting full coolers 4. Internal exposure to contaminants and metals through inhalation of dust 5. Slips/ Trips/ Falls	1. Use monitoring devices / Wear proper PPE (safety glasses, nitrile gloves) 2. Do not over-tighten bottle caps / Handle bottles safely to prevent breakage 6. Use proper lifting techniques / Do not lift heavy loads without assistance 7. Avoid creating dust / If necessary, wear a half mask respirator with applicable dust cartridge / Inspect respirator for damage and cleanliness prior to use / Clean respirator after each use and store in a clean, secure location 8. Be alert / Follow good housekeeping procedures
28. Remove excess soil from acetate liner and place in 55-gallon drum (IF NOT PERFORMED BY LANGAN, REMOVE!)	1. Cuts/lacerations from acetate liner 2. Pinched fingers/hand while opening/closing drum 3. Skin contact with contaminated soil 4. Soil debris in eyes	1. Wear proper PPE (cut-resistant or leather gloves) 2. Wear proper PPE (cut-resistant or leather gloves) 3. Wear proper PPE (nitrile gloves) 4. Wear proper PPE (safety glasses)
8. Transport drums to central staging location (IF NOT PERFORMED BY LANGAN, REMOVE!)	1. Back, arm or shoulder strain from moving drums 2. Pinch fingers/hand in drum cart when moving drums 3. Pinch fingers/hand when operating lift-gate on vehicle 4. Contact with potentially contaminated groundwater when moving improperly sealed drums 5. Slips when moving drums 6. Drop drum on feet/toes	47. Use drum cart for moving drums / Use proper lifting techniques / Do not lift heavy loads without assistance 48. Wear proper PPE (cut-resistant or leather gloves) 49. Wear proper PPE (cut-resistant or leather gloves) 50. Wear proper PPE (nitrile gloves underneath work gloves) 51. Follow good housekeeping procedures / Ensure route to move drum and storage space is free from obstructions 52. Wear proper PPE (safety shoes) / Work in a safe manner to prevent dropped drum
9. All activities	1. Slips/ Trips/ Falls 2. Hand injuries, cuts or lacerations during manual handling of materials 3. Foot injuries 4. Back injuries 5. Traffic 6. Wildlife: Stray dogs, Mice/rats, Vectors (i.e. mosquitoes, bees, etc.) 7. High Noise levels 8. Overhead hazards 9. Heat Stress/ Cold Stress	1. Be aware of potential trip hazards / Follow good housekeeping procedures/ Mark significant hazards 2. Inspect for jagged/sharp edges, and rough or slippery surfaces / Keep fingers away from pinch points / Wipe off greasy, wet, slippery or dirty objects before handling / Wear leather/ cut-resistant gloves 3. Wear Langan approved safety shoes 4. Use proper lifting techniques / Consider load location, task repetition, and load weigh when evaluating what is safe or unsafe to lift / Obtain assistance when possible 5. Wear high visibility clothing & vest / Use cones or signs to designate work area 6. Be aware of surroundings at all times, including the presence of wildlife/ Do not approach stray dogs / Carry/use dog/animal repellant / Use bug spray when needed 7. Wear hearing protection 8. Wear hard hat / Avoid areas where overhead hazards exist. 9. Wear proper attire for weather conditions (sunscreen or protective clothing in sunlight, layers for cold weather) / Drink plenty of fluids to avoid dehydration / Takes breaks as necessary to avoid heat/cold stress

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
9. All activities (cont'd)	10. Eye Injuries	10. Wear safety glasses
Additional items.		
Additional Items identified while in the field. (Delete row if not needed.)		

<u>Print Name</u>	<u>Sign Name</u>	<u>Date</u>
<u>Prepared by:</u>		
<u>Reviewed by:</u>		

JSA Title: Site Inspection

JSA Number: JSA024-01

A Job Safety Analysis (JSA) must identify all job steps required to complete the task, the potential hazards employees could be exposed to while performing the job step and the preventative/corrective actions required to reduce/mitigate the identified potential hazards. Employees must certify that they have either prepared the JSA or have reviewed the JSA and are aware of the potential hazards associated with this task and will follow the provided preventive/corrective actions.

PERSONAL PROTECTIVE EQUIPMENT (Required or to be worn as needed):

<input checked="" type="checkbox"/> Safety Shoes	<input checked="" type="checkbox"/> Long Sleeves	<input checked="" type="checkbox"/> Safety Vest (Class 2)	<input checked="" type="checkbox"/> Hard Hat	<input checked="" type="checkbox"/> Hearing Protection
<input checked="" type="checkbox"/> Safety Glasses	<input type="checkbox"/> Safety Goggles	<input type="checkbox"/> Face Shield	<input checked="" type="checkbox"/> Nitrile Gloves	<input type="checkbox"/> PVC Gloves
<input checked="" type="checkbox"/> Leather Gloves	<input type="checkbox"/> Cut Resist. Gloves	<input type="checkbox"/> Fall Protection	<input type="checkbox"/> Fire Resistant Clothing	<input checked="" type="checkbox"/> Rubber Boots
<input checked="" type="checkbox"/> Insect/Animal Repellent	<input type="checkbox"/> Ivy Blocker/Cleaner	<input checked="" type="checkbox"/> Traffic Cones/Signs	<input type="checkbox"/> Life Vest/Jacket	
<input type="checkbox"/> Other: _____				

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
29. Jobsite Pre-briefing	23. None	18. Review JSA, SOP's, and discuss hazards that may be present and control measures for present hazards while on-site.
2. Working near railroads	1. Passing Trains. 2. Slip/Trips/Falls.	1. Wear reflective vest/ Stay away from tracks/ Do not cross tracks within 10 ft. of train car or when there is a train within view/listen for train horn. 2. Be aware of tripping hazards/ Follow good housekeeping procedures/ Mark significant hazards with spray paint or cones.
3. Walking around site	6. Uneven terrain 7. Wildlife: Stray animals, mice/rats, vectors (i.e. mosquitoes, bees, etc.) 8. Weather: Heat/cold stress 9. Slip/Trips/Falls 10. Foot injuries 11. Eye injuries	9. Pay attention to surrounding area (puddles, wet, frozen, uneven areas); Mark with cones or spray paint. 10. Use bug spray/ Avoid stray animals/Use repellent when needed. 11. Dress for the correct weather situation/ Use sunscreen or protective clothing in sunlight, layers in cold weather/ Drink plenty of fluids/ Take breaks when needed. 4. Be aware of tripping hazards/ Follow good housekeeping procedures/ Mark significant hazards with spray paint or cones. 5. Wear proper PPE (Langan approved safety shoes)/ Change wet socks during cold weather. 6. Wear proper PPE (safety glasses/goggles).
4. Working near road	1. Passing vehicles 2. Slip/Trips/Falls	1. Wear reflective vest/ Stay away from roadway/ Use buddy system/ Place signage or cones when needed. 2. Be aware of tripping hazards/ Follow good housekeeping procedures/ Mark significant hazards with spray paint or cones.
5. All activities	45. Slips/ Trips/ Falls 46. Hand injuries, cuts or lacerations during manual handling of materials 47. Foot injuries 48. Back injuries 49. Traffic	53. Be aware of potential trip hazards / Follow good housekeeping procedures/ Mark significant hazards 54. Inspect for jagged/sharp edges, and rough or slippery surfaces / Keep fingers away from pinch points / Wipe off greasy, wet, slippery or dirty objects before handling / Wear leather/ cut-resistant gloves 55. Wear Langan approved safety shoes

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
	50. Wildlife: Stray dogs, Mice/rats, Vectors (i.e. mosquitoes, bees, etc.) 51. High Noise levels 52. Overhead hazards 53. Heat Stress/ Cold Stress 54. Eye Injuries	56. Use proper lifting techniques / Consider load location, task repetition, and load weigh when evaluating what is safe or unsafe to lift / Obtain assistance when possible 57. Wear high visibility clothing & vest / Use cones or signs to designate work area 58. Be aware of surroundings at all times, including the presence of wildlife/ Do not approach stray dogs / Carry/use dog/animal repellent / Use bug spray when needed 59. Wear hearing protection 60. Wear hard hat / Avoid areas where overhead hazards exist. 61. Wear proper attire for weather conditions (sunscreen or protective clothing in sunlight, layers for cold weather) / Drink plenty of fluids to avoid dehydration / Take breaks as necessary to avoid heat/cold stress 62. Wear safety glasses
Additional items.		
Additional Items identified while in the field. (Delete row if not needed.)		

<u>Print Name</u>	<u>Sign Name</u>	<u>Date</u>
<u>Prepared by:</u>		
<u>Reviewed by:</u>		



**Job Safety Analysis (JSA)
Health and Safety**

JSA Title: Building Construction Oversight

JSA Number: JSA006-01

A Job Safety Analysis (JSA) must identify all job steps required to complete the task, the potential hazards employees could be exposed to while performing the job step and the preventative/corrective actions required to reduce/mitigate the identified potential hazards. Employees must certify that they have either prepared the JSA or have reviewed the JSA and are aware of the potential hazards associated with this task and will follow the provided preventive/corrective actions.

PERSONAL PROTECTIVE EQUIPMENT (Required or to be worn as needed):

<input checked="" type="checkbox"/> Safety Shoes	<input checked="" type="checkbox"/> Long Sleeves	<input checked="" type="checkbox"/> Safety Vest (Class 2)	<input checked="" type="checkbox"/> Hard Hat	<input checked="" type="checkbox"/> Hearing Protection
<input checked="" type="checkbox"/> Safety Glasses	<input type="checkbox"/> Safety Goggles	<input checked="" type="checkbox"/> Face Shield	<input checked="" type="checkbox"/> Nitrile Gloves	<input type="checkbox"/> PVC Gloves
<input checked="" type="checkbox"/> Leather Gloves	<input type="checkbox"/> Cut Resist. Gloves	<input type="checkbox"/> Fall Protection	<input type="checkbox"/> Fire Resistant Clothing	<input type="checkbox"/> Rubber Boots
<input type="checkbox"/> Insect/Animal Repellent	<input type="checkbox"/> Ivy Blocker/Cleaner	<input checked="" type="checkbox"/> Traffic Cones/Signs	<input type="checkbox"/> Life Vest/Jacket	

Other:

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
30. Transport equipment to work area	24. Back Strain 25. Slips/ Trips/ Falls 26. Traffic 27. Cuts/abrasions from equipment 28. Contusions from dropped equipment	6. Use proper lifting techniques / Use wheeled transport 7. Minimize distance to work area / Have unobstructed path to work area / Follow good housekeeping procedures 8. Wear proper PPE (high visibility vest or clothing) 9. Wear proper PPE (leather gloves, long sleeves) 10. Wear proper PPE (safety shoes)
31. Drilling/anchor bolt installation	8. Hazards associated with drilling, flying objects, heavy equipment, ground level hazards and dust 9. Slips/ Trips/ Falls 10. Hazards associated with concrete work	3. Maintain a safe distance from drilling operation / Wear proper PPE (hard hat, safety glasses, safety shoes, safety vest) 4. Be aware of potential trip hazards / Follow good housekeeping procedures / Mark significant below-grade hazards (i.e. holes, trenches) with safety cones or spray paint / Wear the proper PPE (safety shoes) 5. Maintain a safe distance from pouring operation
32. Steel building erection	6. Overhead hazards, falling objects 7. Pinching/crushing hazards	5. Wear proper PPE (hard hat, safety glasses, safety vest) / Be aware of overhead hazards and maintain a safe distance of at least 10 ft. 6. All personnel should make others aware of moving objects or their intent to move objects / Avoid areas where pinching and crushing hazards are possible
33. All activities	55. Slips/ Trips/ Falls 56. Hand injuries, cuts or lacerations during manual handling of materials 57. Foot injuries 58. Back injuries 59. Traffic 60. Wildlife: Stray dogs, Mice/rats, Vectors (i.e. mosquitoes, bees, etc.) 61. High Noise levels 62. Overhead hazards	63. Be aware of potential trip hazards / Follow good housekeeping procedures/ Mark significant hazards 64. Inspect for jagged/sharp edges, and rough or slippery surfaces / Keep fingers away from pinch points / Wipe off greasy, wet, slippery or dirty objects before handling / Wear leather/ cut-resistant gloves 65. Wear Langan approved safety shoes 66. Use proper lifting techniques / Consider load location, task repetition, and load weight when evaluating what is safe or unsafe to lift / Obtain assistance when possible

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
4. All activities (cont'd)	63. Heat Stress/ Cold Stress 64. Eye Injuries	67. Wear high visibility clothing & vest / Use cones or signs to designate work area 68. Be aware of surroundings at all times, including the presence of wildlife/ Do not approach stray dogs / Carry/use dog/animal repellent / Use bug spray when needed 69. Wear hearing protection 70. Wear hard hat / Avoid areas where overhead hazards exist. 71. Wear proper attire for weather conditions (sunscreen or protective clothing in sunlight, layers for cold weather) / Drink plenty of fluids to avoid dehydration / Take breaks as necessary to avoid heat/cold stress 72. Wear safety glasses
Additional items.		
Additional Items identified while in the field. (Delete row if not needed.)		

<u>Print Name</u>	<u>Sign Name</u>	<u>Date</u>
<i>Prepared by:</i>		
<i>Reviewed by:</i>		



Job Safety Analysis (JSA) Health and Safety

JSA Title: Geotechnical Drilling

JSA Number: JSA014-01

A Job Safety Analysis (JSA) must identify all job steps required to complete the task, the potential hazards employees could be exposed to while performing the job step and the preventative/corrective actions required to reduce/mitigate the identified potential hazards. Employees must certify that they have either prepared the JSA or have reviewed the JSA and are aware of the potential hazards associated with this task and will follow the provided preventive/corrective actions.

PERSONAL PROTECTIVE EQUIPMENT (Required or to be worn as needed):				
<input checked="" type="checkbox"/> Safety Shoes	<input checked="" type="checkbox"/> Long Sleeves	<input checked="" type="checkbox"/> Safety Vest (Class 2)	<input checked="" type="checkbox"/> Hard Hat	<input checked="" type="checkbox"/> Hearing Protection
<input checked="" type="checkbox"/> Safety Glasses	<input type="checkbox"/> Safety Goggles	<input checked="" type="checkbox"/> Face Shield	<input checked="" type="checkbox"/> Nitrile Gloves	<input type="checkbox"/> PVC Gloves
<input checked="" type="checkbox"/> Leather Gloves	<input type="checkbox"/> Cut Resist. Gloves	<input type="checkbox"/> Fall Protection	<input type="checkbox"/> Fire Resistant Clothing	<input type="checkbox"/> Rubber Boots
<input type="checkbox"/> Insect/Animal Repellent	<input type="checkbox"/> Ivy Blocker/Cleaner	<input type="checkbox"/> Traffic Cones/Signs	<input type="checkbox"/> Life Vest/Jacket	
<input checked="" type="checkbox"/> Other: Nomex (as needed)				
JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION		
34. Transport equipment to work area	29. Back Strain 30. Slips/ Trips/ Falls 31. Traffic 32. Cuts/abrasions from equipment 33. Contusions from dropped equipment	11. Use proper lifting techniques / Use wheeled transport 12. Minimize distance to work area / Have unobstructed path to work area / Follow good housekeeping procedures 13. Wear proper PPE (high visibility vest or clothing) 14. Wear proper PPE (leather gloves, long sleeves) 15. Wear proper PPE (safety shoes)		
35. Set-up HSA/SPT rig	11. Slips/ Trips/ Falls 12. Pinch Hazards 13. High noise levels 14. Clothing entanglement 15. Electrocutation/falling equipment and debris from raising HSA/SPT rig mast 16. Carbon monoxide poisoning 17. HSA/SPT rig roll-over 18. HSA/SPT rig movement	6. Be aware of potential trip hazards / Follow good housekeeping procedures / Mark significant below-grade hazards (i.e. holes, trenches) with safety cones or spray paint 7. Wear proper PPE (leather gloves) 8. Wear proper PPE (hearing protection) 9. Wear proper attire for HSA/SPT rig (no loose clothing, strings, etc.) 10. Wear proper PPE (hard hats) / Be aware of locations at all times / Look up, down and around before raising mast / Check HSA/SPT drill rig mast for loose objects/debris before raising 11. Stand upwind of rig engine 12. Do not move rig with mast raising / Set stabilizers prior to raising mast / Inspect work area / If area appears unstable, the boring locations should be moved. 13. All field personnel should stay clear of rig while moving / Use a spotter when backing up the rig		
36. Advance HSA/SPT rods, augers and casing below ground surface	8. Strain wrist/bruise palm 9. Pinched fingers 10. Back strain 11. Clothing entanglement 12. Carbon monoxide poisoning 13. Bruised/Broken toes/feet	7. Wear proper PPE (leather gloves) / Use proper technique for preparing rods / Use second person, if necessary 8. Wear proper PPE (leather gloves) 9. Use proper lifting techniques / Obtain assistance if needed 10. Wear proper attire for HSA/SPT rig (no loose clothing, strings, etc.) 11. Stand upwind of the rig		

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
37. Advance HSA/SPT rods, augers and casing below ground surface (cont'd)	14. High noise levels	12. Wear proper PPE (safety shoes) 13. Wear proper PPE (hearing protection)
38. Remove and open split spoon	12. Pinched fingers 13. Cuts/lacerations 14. Skin contact with contaminated soil and groundwater	1. Wear proper PPE (nitrile and leather gloves) 2. Wear proper PPE (leather gloves) 3. Wear proper PPE (nitrile gloves, safety glasses)
39. Repeat steps 3 and 4 until desired depth is reached	1. See steps 3 and 4	1. See steps 3 and 4
40. Remove HSA/SPT rods, augers and casing and place in storage rack	1. Clothing entanglement 2. Back strain 3. Pinched fingers 4. Carbon monoxide poisoning 5. High noise levels	1. Wear proper attire for HSA/SPT rig (no loose clothing, strings, etc.) 2. Use proper lifting techniques / Obtain assistance if needed 3. Wear proper PPE (leather gloves) 4. Stand upwind of rig engine 5. Wear proper PPE (hearing protection)
41. Tremie-grout borehole with a cement-bentonite grout mixture	1. Splash cement/bentonite grout on face/eyes 2. Back strain 3. Pinched fingers	1. Wear proper PPE (safety glasses) 2. Use proper lifting techniques / Obtain assistance if needed 3. Wear proper PPE (nitrile gloves, leather gloves)
42. Decontaminate equipment	1. Contact with potentially impacted material 2. Contact with sharp pieces of equipment	1. Wear proper PPE (safety glasses, nitrile gloves) 2. Wear proper PPE (leather gloves)
43. Patch soil boring location to return to pre-existing conditions (i.e. concrete, asphalt, grass)	1. Cuts/lacerations 2. Splashed concrete on face/eyes 3. Hammer fingers/hands when patching asphalt	1. Wear proper PPE (leather gloves) / Use scissors for cutting 2. Use proper PPE (safety glasses) 3. Be aware of hands/fingers during hammering / Wear proper PPE (leather gloves)
44. All activities	65. Slips/ Trips/ Falls 66. Hand injuries, cuts or lacerations during manual handling of materials 67. Foot injuries 68. Back injuries 69. Traffic 70. Wildlife: Stray dogs, Mice/rats, Vectors (i.e. mosquitoes, bees, etc.) 71. High Noise levels 72. Overhead hazards 73. Heat Stress/ Cold Stress 74. Eye Injuries	73. Be aware of potential trip hazards / Follow good housekeeping procedures/ Mark significant hazards 74. Inspect for jagged/sharp edges, and rough or slippery surfaces / Keep fingers away from pinch points / Wipe off greasy, wet, slippery or dirty objects before handling / Wear leather/ cut-resistant gloves 75. Wear Langan approved safety shoes 76. Use proper lifting techniques / Consider load location, task repetition, and load weigh when evaluating what is safe or unsafe to lift / Obtain assistance when possible 77. Wear high visibility clothing & vest / Use cones or signs to designate work area 78. Be aware of surroundings at all times, including the presence of wildlife/ Do not approach stray dogs / Carry/use dog/animal repellent / Use bug spray when needed 79. Wear hearing protection 80. Wear hard hat / Avoid areas where overhead hazards exist.

JOB STEPS	POTENTIAL HAZARDS	PREVENTATIVE / CORRECTIVE ACTION
		81. Wear proper attire for weather conditions (sunscreen or protective clothing in sunlight, layers for cold weather) / Drink plenty of fluids to avoid dehydration / Takes breaks as necessary to avoid heat/cold stress 82. Wear safety glasses
Additional items.		
Additional Items identified while in the field. (Delete row if not needed.)		

<u>Print Name</u>	<u>Sign Name</u>	<u>Date</u>
<i>Prepared by:</i>		
<i>Reviewed by:</i>		

ATTACHMENT H

TAILGATE SAFETY BRIEFING FORM

LANGAN TAILGATE SAFETY BRIEFING

Date: _____

Time: _____

Leader: _____

Location: _____

Work Task:

SAFETY TOPICS (provide some detail of discussion points)

Chemical Exposure Hazards and Control: _____

Physical Hazards and Control: _____

Air Monitoring: _____

PPE: _____

Communications: _____

Safe Work Practices: _____

Emergency Response: _____

Hospital/Medical Center Location: _____

Phone Nos.: _____

Other: _____

FOR FOLLOW-UP (the issues, responsibilities, due dates, etc.)

ATTENDEES

PRINT NAME	COMPANY	SIGNATURE

APPENDIX E

QUALITY ASSURANCE PROJECT PLAN

QUALITY ASSURANCE PROJECT PLAN

for

GERARD AVENUE AND EAST 146TH STREET
404 Exterior Street, 417 and 445 Gerard Avenue,
440 Major Wm Deegan Boulevard
Bronx, New York 10451
NYSDEC BCP Site No. C203111

Prepared For:

445 Gerard LLC
c/o The Domain Companies
11 Park Place, Suite 1705
New York, NY 10007

Prepared By:

Langan Engineering, Environmental, Surveying
Landscape Architecture and Geology, D.P.C.
21 Penn Plaza
360 West 31st Street, 8th Floor
New York, New York

June 2019

Langan Project No. 170487003

LANGAN

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ATTACHMENTS

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Attachment B:	Laboratory Reporting Limits and Method Detection Limits
Attachment C:	Analytical Methods/Quality Assurance Summary Table
Attachment D:	Sample Nomenclature

1.0 PROJECT DESCRIPTION

1.1 INTRODUCTION

This Quality Assurance Project Plan (QAPP) was prepared on behalf of 445 Gerard LLC (the Volunteer), for the Gerard Avenue and East 146th Street Site in the Bronx, New York (the site). This Quality Assurance Project Plan (QAPP) supports the Remedial Action Work Plan (RAWP) that was submitted to the New York State Department of Environmental Conservation (NYSDEC) as part of a New York State Brownfield Cleanup Program (BCP) application. The Requestor intends to remediate the site in conjunction with redevelopment.

This QAPP specifies analytical methods to be used to ensure that data collected during site management are precise, accurate, representative, comparable, complete, and meet the sensitivity requirements of the project.

1.2 PROJECT OBJECTIVES

The RAWP covers earthwork to be completed during construction of the proposed development at the site. A Health and Safety Plan (HASP) and Community Air Monitoring Plan (CAMP) for the protection of on-site workers, the community, and the environment has been developed and will be implemented during remediation and construction activities. These objectives have been established in order to meet standards that will protect public health and the environment for the site.

1.3 SCOPE OF WORK

Implementation of the RAWP consists of remediation of the site to Track 4 site-specific cleanup standards. The proposed Track 4 remedy consists of the following tasks:

- Completion of in-situ groundwater treatment via injection of activated persulfate and oxygen release compound on the northern half of the site.
- Abatement of hazardous materials (including asbestos-containing material [ACM] identified in floor tile, pipe and boiler insulation, roofing materials, duct tar, window and door caulking, and various mastics; lead-based paint [LBP] identified at various locations in the four buildings; and other universal waste and miscellaneous hazardous waste articles) and demolition of the existing buildings in order to prepare the site for remediation

- Construction of the support of excavation (SOE) system to facilitate the Track 4 remediation
- Dewatering and treatment, as necessary, to accommodate the removal of material that exceeds soil cleanup objectives (SCOs), the removal of material to reach the proposed development subgrade depth, and to facilitate foundation construction
- Excavation, stockpiling, off-site transport, and disposal of historic fill and native soil that exceeds site-specific SCOs and to facilitate SOE installation and foundation construction
- Removal and decommissioning of four suspect oil-water separators, five suspect underground storage tanks (USTs), five aboveground storage tanks (ASTs), and any additional encountered USTs and associated appurtenances (e.g., fill lines, vent line, and electrical conduit) and disposal off-site during site redevelopment
- Collection and analysis of bottom documentation soil samples in accordance with DER-10 to document site-specific SCOs
- Installation of a vapor barrier/waterproofing membrane below the basement slab and along sidewalls to grade
- Backfilling of over-excavated areas, if required, with certified-clean material (i.e., material meeting the lower of protection of groundwater (PGW) and restricted use restricted-residential [RURR] SCOs), RCA, or virgin, native crushed stone
- Development and implementation of a Construction HASP (CHASP) and community air monitoring plan (CAMP) for the protection of on-site workers, community/residents, and the environment during remediation and construction activities
- Establishment of use restrictions including prohibitions on the use of groundwater from the site and prohibitions on sensitive site uses, such as farming or vegetable gardening, to eliminate future exposure pathways
- Establishment of engineering controls (EC), which include a site cover system consisting of the concrete building foundation and/or a minimum of two feet of clean fill in areas not capped by the building foundation
- Establishment of an approved site management plan (SMP) to ensure long-term management of engineering and institutional controls, including the performance

of periodic inspections and certification that the controls are performing as they were intended

- Recording of an Environmental Easement (EE) to memorialize the remedial action and the engineering and institutional controls (IC) to ensure that future owners of the site continue to maintain these controls as required

2.0 DATA QUALITY OBJECTIVES AND PROCESS

Data Quality Objectives (DQOs) are qualitative and quantitative statements to help ensure that data of known and appropriate quality are obtained during the project. The overall objective is to prevent additional environmental impacts to site media (soil and groundwater) by removal of hazardous lead-impacted fill hot-spots. DQOs for sampling activities are determined by evaluating five factors:

- Data needs and uses: The types of data required and how the data will be used after it is obtained.
- Parameters of Interest: The types of chemical or physical parameters required for the intended use.
- Level of Concern: Levels of constituents, which may require remedial actions or further investigations.
- Required Analytical Level: The level of data quality, data precision, and QA/QC documentation required for chemical analysis.
- Required Detection Limits: The detection limits necessary based on the above information.

The quality assurance and quality control objectives for all measurement data include:

- **Precision** – an expression of the reproducibility of measurements of the same parameter under a given set of conditions. Field sampling precision will be determined by analyzing coded duplicate samples and analytical precision will be determined by analyzing internal QC duplicates and/or matrix spike duplicates.
- **Accuracy** – a measure of the degree of agreement of a measured value with the true or expected value of the quantity of concern. For soil and groundwater samples, accuracy will be determined through the assessment of the analytical results of field blanks and trip blanks for each sample set. Analytical accuracy will be assessed by examining the percent recoveries of surrogate compounds that are added to each sample (organic analyses only), internal standards, laboratory method blanks, instrument calibration, and the percent recoveries of matrix spike compounds added to selected samples and laboratory blanks. For soil vapor or air samples, analytical accuracy will be assessed by examining the percent recoveries that are added to each sample, internal standards, laboratory method blanks, and instrument calibration.

- **Representativeness** – expresses the degree to which sample data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, or an environmental condition. Representativeness is dependent upon the adequate design of the sampling program and will be satisfied by ensuring that the scope of work is followed and that specified sampling and analysis techniques are used. Representativeness in the laboratory is ensured by compliance to nationally-recognized analytical methods, meeting sample holding times, and maintaining sample integrity while the samples are in the laboratory's possession. This is accomplished by following all applicable methods, laboratory-issued standard operating procedures (SOPs), the laboratory's Quality Assurance Manual, and this QAPP. The laboratory is required to be properly certified and accredited.
- **Completeness** – the percentage of measurements made which are judged to be valid. Completeness will be assessed through data validation. The QC objective for completeness is generation of valid data for at least 90 percent of the analyses requested.
- **Comparability** – expresses the degree of confidence with which one data set can be compared to another. The comparability of all data collected for this project will be ensured using several procedures, including standard methods for sampling and analysis as documented in the QAPP, using standard reporting units and reporting formats, and data validation.
- **Sensitivity** – the ability of the instrument or method to detect target analytes at the levels of interest. The project manager will select, with input from the laboratory and QA personnel, sampling and analytical procedures that achieve the required levels of detection.

3.0 PROJECT ORGANIZATION

Excavation activities will be overseen by Langan on behalf of the Requestor. Langan will perform the sampling collection as described in the RAWP and will subcontract excavation and analytical services. Langan will also arrange data analysis and reporting tasks. The analytical services will be performed by Alpha Analytical Laboratories, Inc. of Westborough, Massachusetts (NYSDOH ELAP certification number 11148).

Key contacts for this project are as follows:

445 Gerard LLC:	Mr. Chris Papamichael Telephone: (212) 991-0001
Remediation Engineer:	Mr. Jason Hayes, P.E. Telephone: (212) 479-5427
Langan Project Director:	Mr. Ryan Manderbach, CHMM Telephone: (212) 479-5582
Langan Project Manager:	Mr. Brian Gochenaur Telephone: (212) 479-5479
Langan Field Team Leader:	Ms. Julia Leung Telephone: (212) 479-5429
Langan Quality Assurance Officer (QAO):	Mr. William Bohrer Telephone: (212) 479-5533
Langan Health and Safety Manager:	Mr. Tony Moffa, CHMM Telephone: (215) 491-6500
Langan Health and Safety Officer:	Mr. William Bohrer Telephone: (410) 984-3068
Data Validator:	Emily Strake, Langan Telephone: (215) 491-6526
Laboratory Representative:	Mr. Ben Rao (Alpha) Telephone: (201) 847-2951
Field Personnel:	TBD

Langan résumés are appended to the RAWP.

4.0 QUALITY ASSURANCE OBJECTIVES FOR COLLECTION OF DATA

The overall quality assurance objective is to develop and implement procedures for sampling, laboratory analysis, field measurements, and reporting that will provide data of sufficient quality to evaluate the engineering controls on the site. The sample set, chemical analysis results, and interpretations must be based on data that meet or exceed quality assurance objectives established for the site. Quality assurance objectives are usually expressed in terms of accuracy or bias, sensitivity, completeness, representativeness, comparability, and sensitivity of analysis. Variances from the quality assurance objectives at any stage of the investigation will result in the implementation of appropriate corrective measures and an assessment of the impact of corrective measures on the usability of the data.

4.1 PRECISION

Precision is a measure of the degree to which two or more measurements are in agreement. Field precision is assessed through the collection and measurement of field duplicates. Laboratory precision and sample heterogeneity also contribute to the uncertainty of field duplicate measurements. This uncertainty is taken into account during the data assessment process. For field duplicates, results less than 2x the reporting limit (RL) meet the precision criteria if the absolute difference is less than $\pm 2x$ the RL and acceptable based on professional judgement. For results greater than 2x the RL, the acceptance criteria is a relative percent difference (RPD) of $\leq 50\%$ (soil and air), $< 30\%$ (water). RLs and method detection limits (MDL) are provided in Attachment A.

4.2 ACCURACY

Accuracy is the measurement of the reproducibility of the sampling and analytical methodology. It should be noted that precise data may not be accurate data. For the purpose of this QAPP, bias is defined as the constant or systematic distortion of a measurement process, which manifests itself as a persistent positive or negative deviation from the known or true value. This may be due to (but not limited to) improper sample collection, sample matrix, poorly calibrated analytical or sampling equipment, or limitations or errors in analytical methods and techniques.

Accuracy in the field is assessed through the use of field blanks and through compliance to all sample handling, preservation, and holding time requirements. All field blanks should be non-detect when analyzed by the laboratory. Any contaminant detected in an

associated field blank will be evaluated against laboratory blanks (preparation or method) and evaluated against field samples collected on the same day to determine potential for bias. Trip blanks are not required for non-aqueous matrices but are planned for non-aqueous matrices where high concentrations of VOCs are anticipated.

Laboratory accuracy is assessed by evaluating the percent recoveries of matrix spike/matrix spike duplicate (MS/MSD) samples, laboratory control samples (LCS), surrogate compound recoveries, and the results of method preparation blanks. MS/MSD, LCS, and surrogate percent recoveries will be compared to either method-specific control limits or laboratory-derived control limits. Sample volume permitting, samples displaying outliers should be reanalyzed. All associated method blanks should be non-detect when analyzed by the laboratory.

4.3 COMPLETENESS

Laboratory completeness is the ratio of total number of samples analyzed and verified as acceptable compared to the number of samples submitted to the fixed-base laboratory for analysis, expressed as a percent. Three measures of completeness are defined:

- Sampling completeness, defined as the number of valid samples collected relative to the number of samples planned for collection;
- Analytical completeness, defined as the number of valid sample measurements relative to the number of valid samples collected; and
- Overall completeness, defined as the number of valid sample measurements relative to the number of samples planned for collection.

Air, soil vapor, soil, and groundwater data will meet a 90% completeness criterion. If the criterion is not met, sample results will be evaluated for trends in rejected and unusable data. The effect of unusable data required for a determination of compliance will also be evaluated.

4.4 REPRESENTATIVENESS

Representativeness expresses the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition within a defined spatial and/or temporal

boundary. Representativeness is dependent upon the adequate design of the sampling program and will be satisfied by ensuring that the scope of work is followed and that specified sampling and analysis techniques are used. This is performed by following applicable standard operating procedures (SOPs) and this QAPP. All field technicians will be given copies of appropriate documents prior to sampling events and are required to read, understand, and follow each document as it pertains to the tasks at hand.

Representativeness in the laboratory is ensured by compliance to nationally-recognized analytical methods, meeting sample holding times, and maintaining sample integrity while the samples are in the laboratory's possession. This is performed by following all applicable EPA methods, laboratory-issued SOPs, the laboratory's Quality Assurance Manual, and this QAPP. The laboratory is required to be properly certified and accredited.

4.5 COMPARABILITY

Comparability is an expression of the confidence with which one data set can be compared to another. Comparability is dependent upon the proper design of the sampling program and will be satisfied by ensuring that the sampling plan is followed and that sampling is performed according to the SOPs or other project-specific procedures. Analytical data will be comparable when similar sampling and analytical methods are used as documented in the QAPP. Comparability will be controlled by requiring the use of specific nationally-recognized analytical methods and requiring consistent method performance criteria. Comparability is also dependent on similar quality assurance objectives. Previously collected data will be evaluated to determine whether they may be combined with contemporary data sets.

4.6 SENSITIVITY

Sensitivity is the ability of the instrument or method to detect target analytes at the levels of interest. The project director will select, with input from the laboratory and QA personnel, sampling and analytical procedures that achieve the required levels of detection and QC acceptance limits that meet established performance criteria. Concurrently, the project director will select the level of data assessment to ensure that only data meeting the project DQOs are used in decision-making.

Field equipment will be used that can achieve the required levels of detection for analytical measurements in the field. In addition, the field sampling staff will collect and submit full volumes of samples as required by the laboratory for analysis, whenever possible. Full

volume aliquots will help ensure achievement of the required limits of detection and allow for reanalysis if necessary. The concentration of the lowest level check standard in a multi-point calibration curve will represent the reporting limit.

Analytical methods and quality assurance parameters associated with the sampling program are presented in Attachment B. The frequency of associated field blanks and duplicate samples will be based on the recommendations listed in DER-10, and as described in Section 5.3.

Site-specific MS and MSD samples will be prepared and analyzed by the analytical laboratory by spiking an aliquot of submitted sample volume with analytes of interest. Additional sample volume is not required by the laboratory for this purpose. An MS/MSD analysis will be analyzed at a rate of 1 out of every 20 samples, or one per analytical batch. MS/MSD samples are only required for soil and groundwater samples.

5.0 SAMPLE COLLECTION AND FIELD DATA ACQUISITION PROCEDURES

Soil and groundwater sampling will be conducted in accordance with the established NYSDEC protocols contained in DER-10/Technical Guidance for Site Investigation and Remediation (May 2010). Soil vapor sampling will be conducted in accordance with the established New York State Department of Health (NYSDOH) protocols contained in the Guidance for Evaluating Soil Vapor Intrusion in the State of New York (October 2006). The following sections describe procedures to be followed for specific tasks.

5.1 FIELD DOCUMENTATION PROCEDURES

Field documentation procedures will include summarizing field data in field books and field data sheets, and proper sample labeling. These procedures are described in the following sections.

5.1.1 Field Data and Notes

Field notebooks contain the documentary evidence regarding procedures conducted by field personnel. Hard cover, bound field notebooks will be used because of their compact size, durability, and secure page binding. The pages of the notebook will not be removed.

Entries will be made in waterproof, permanent blue or black ink. No erasures will be allowed. If an incorrect entry is made, the information will be crossed out with a single strike mark and the change initialed and dated by the team member making the change. Each entry will be dated. Entries will be legible and contain accurate and complete documentation of the individual or sampling team's activities or observations made. The level of detail will be sufficient to explain and reconstruct the activity conducted. Each entry will be signed by the person(s) making the entry.

The following types of information will be provided for each sampling task, as appropriate:

- Project name and number
- Reasons for being on-site or taking the sample
- Date and time of activity
- Sample identification numbers

- Geographical location of sampling points with references to the site, other facilities or a map coordinate system. Sketches will be made in the field logbook when appropriate
- Physical location of sampling locations such as depth below ground surface
- Description of the method of sampling including procedures followed, equipment used and any departure from the specified procedures
- Description of the sample including physical characteristics, odor, etc.
- Readings obtained from health and safety equipment
- Weather conditions at the time of sampling and previous meteorological events that may affect the representative nature of a sample
- Photographic information including a brief description of what was photographed, the date and time, the compass direction of the picture and the number of the picture on the camera
- Other pertinent observations such as the presence of other persons on the site, actions by others that may affect performance of site tasks, etc.
- Names of sampling personnel and signature of persons making entries

Field records will also be collected on field data sheets including boring logs, which will be used for geologic and drilling data during soil boring activities. Field data sheets will include the project-specific number and stored in the field project files when not in use. At the completion of the field activities, the field data sheets will be maintained in the central project file.

5.1.2 Sample Labeling

Each sample collected will be assigned a unique identification number in accordance with the sample nomenclature guidance included in Attachment C, and placed in an appropriate sample container. Each sample container will have a sample label affixed to the outside with the date and time of sample collection and project name. In addition, the label will contain the sample identification number, analysis required and chemical preservatives added, if any. All documentation will be completed in waterproof ink.

5.2 EQUIPMENT CALIBRATION AND PREVENTATIVE MAINTENANCE

A photoionization detector (PID) will be used during the sampling activities to evaluate work zone action levels, collect pre- and post-sample readings for air samples, screen soil samples, and collect monitoring well headspace readings. Field calibration and/or field checking of the PID will be the responsibility of the field team leader and the site HSO, and will be accomplished by following the procedures outlined in the operating manual for the instrument. At a minimum, field calibration and/or field equipment checking will be performed once daily, prior to use. Field calibration will be documented in the field notebook. Entries made into the logbook regarding the status of field equipment will include the following information:

- Date and time of calibration
- Type of equipment serviced and identification number (such as serial number)
- Reference standard used for calibration
- Calibration and/or maintenance procedure used
- Other pertinent information

A water quality meter (YSI 6820 or similar) will be used during purging of groundwater to measure pH, specific conductance, temperature, dissolved oxygen, turbidity and oxidation-reduction-potential (ORP), every ten minutes. A portable turbidity meter (LaMotte or similar) may also be used to measure turbidity. Water-quality meters should be calibrated and the results documented before use each day using standardized field calibration procedures and calibration checks.

Equipment that fails calibration or becomes inoperable during use will be removed from service and segregated to prevent inadvertent utilization. The equipment will be properly tagged to indicate that it is out of calibration. Such equipment will be repaired and recalibrated to the manufacturer's specifications by qualified personnel. Equipment that cannot be repaired will be replaced.

Off-site calibration and maintenance of field instruments will be conducted as appropriate throughout the duration of project activities. All field instrumentation, sampling equipment and accessories will be maintained in accordance with the manufacturer's recommendations and specifications and established field equipment practice. Off-site calibration and maintenance will be performed by qualified personnel. A logbook will be

kept to document that established calibration and maintenance procedures have been followed. Documentation will include both scheduled and unscheduled maintenance.

5.3 SAMPLE COLLECTION

Soil Samples

Soil samples will be visually classified and field screened using a PID to assess potential impacts from VOCs and for health and safety monitoring. Soil samples collected for analysis of VOCs will be collected using either EnCore® or Terra Core® sampling equipment. For analysis of non-volatile parameters, samples will be homogenized and placed into glass jars. After collection, all sample jars will be capped and securely tightened, and placed in iced coolers and maintained at $4^{\circ}\text{C} \pm 2^{\circ}\text{C}$ until they are transferred to the laboratory for analysis, in accordance with the procedures outlined in Section 5.4. Analysis and/or extraction and digestion of collected soil samples will meet the holding times required for each analyte as specified in Attachment B. In addition, analysis of collected soil sample will meet all quality assurance criteria set forth by this QAPP and DER-10.

Groundwater Samples

Groundwater sampling will be conducted using low-flow sampling procedures following USEPA guidance (“Low Stress [low flow] Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells”, EQASOP-GW 001, January 19, 2010).

During purging, field parameters should be measured, including: water level drawdown, purge rate, pH, specific conductance, temperature, dissolved oxygen, turbidity and oxidation-reduction-potential (ORP), every ten minutes using a water quality meter (YSI 6820 or similar) and a depth-to-water interface probe that should be decontaminated between wells. Samples should generally not be collected until the field parameters have stabilized. Field parameters will be considered stable once three sets of measurements are within ± 0.1 standard units for pH, $\pm 3\%$ for conductivity and temperature, ± 10 millivolts for ORP, and $\pm 10\%$ for turbidity and dissolved oxygen. Purge rates should be adjusted to keep the drawdown in the well to less than 0.3 feet, as practical. Additionally, an attempt should be made to achieve a stable turbidity reading of less than 10 Nephelometric Turbidity Units (NTU) prior to sampling. If the turbidity reading does not stabilize at reading of less than 10 NTU for a given well, then both filtered and unfiltered

samples should be collected from that well. If necessary, field filtration should be performed using a 0.45 micron disposable in-line filter. Groundwater samples should be collected after parameters have stabilized as noted above or the readings are within the precision of the meter. Deviations from the stabilization and drawdown criteria, if any, should be noted on the sampling logs.

Samples should be collected directly into laboratory-supplied jars. After collection, all sample jars will be capped and securely tightened, and placed in iced coolers and maintained at 4°C ±2°C until they are transferred to the laboratory for analysis, in accordance with the procedures outlined in Section 5.4. Analysis and/or extraction and digestion of collected groundwater samples will meet the holding times required for each analyte as specified in Attachment B. In addition, analysis of collected groundwater sample will meet all quality assurance criteria set forth by this QAPP and DER-10.

Soil Vapor Samples

Prior to sample collection, a pre-sampling inspection will be conducted to document chemicals and potential subsurface pathways at the site. Soil vapor samples will be collected into laboratory-supplied, batch certified-clean Summa® canisters calibrated for a sampling rate of two hours. The pressure gauges on each calibrated flow controller should be monitored throughout sample collection. Sample collection should be stopped when the pressure reading reaches -4 mmHg.

Sample Field Blanks and Duplicates

Field blanks will be collected for quality assurance purposes at a rate of one per 20 investigative samples per matrix (soil and groundwater only). Field blanks will be obtained by pouring laboratory-demonstrated analyte-free water on or through a decontaminated sampling device following use and implementation of decontamination protocols. The water will be collected off of the sampling device into a laboratory-provided sample container for analysis. Field blank samples will be analyzed for the complete list of analytes on the day of sampling. Trip blanks will be collected at a rate of one per day if soil samples are analyzed for VOCs during that day.

Duplicate soil samples will be collected and analyzed for quality assurance purposes. Duplicate samples will be collected at a frequency of 1 per 20 investigative samples per matrix and will be submitted to the laboratory as "blind" samples. If less than 20 samples are collected during a particular sampling event, one duplicate sample will be collected.

5.4 SAMPLE CONTAINERS AND HANDLING

Certified, commercially clean sample containers will be obtained from the analytical laboratory. If soil or groundwater samples are being collected, the laboratory will also prepare and supply the required trip blanks and field blank sample containers and reagent preservatives. Sample bottle containers, including the field blank containers, will be placed into plastic coolers by the laboratory. These coolers will be received by the field sampling team within 24 hours of their preparation in the laboratory. Prior to the commencement of field work, Langan field personnel will fill the plastic coolers with ice in Ziploc® bags (or equivalent) to maintain a temperature of $4^{\circ} \pm 2^{\circ} \text{C}$.

Soil and/or groundwater samples collected in the field for laboratory analysis will be placed directly into the laboratory-supplied sample containers. Samples will then be placed and stored on-ice in laboratory provided coolers until shipment to the laboratory. The temperature in the coolers containing samples and associated field blanks will be maintained at a temperature of $4^{\circ} \pm 2^{\circ} \text{C}$ while on-site and during sample shipment to the analytical laboratory.

Possession of samples collected in the field will be traceable from the time of collection until they are analyzed by the analytical laboratory or are properly disposed. Chain-of-custody procedures, described in Section 5.9, will be followed to maintain and document sample possession. Samples will be packaged and shipped as described in Section 5.6.

5.5 SAMPLE PRESERVATION

Sample preservation measures will be used in an attempt to prevent sample decomposition by contamination, degradation, biological transformation, chemical interactions and other factors during the time between sample collection and analysis. Preservation will commence at the time of sample collection and will continue until analyses are performed. Should chemical preservation be required, the analytical laboratory will add the preservatives to the appropriate sample containers before shipment to the office or field. Samples will be preserved according to the requirements of the specific analytical method selected, as shown in Attachment B.

5.6 SAMPLE SHIPMENT

5.6.1 Packaging

Soil vapor samples canisters can be stored and transported without additional packaging. Soil and groundwater sample containers will be placed in plastic coolers. Ice in Ziploc® bags (or equivalent) will be placed around sample containers. Cushioning material will be added around the sample containers if necessary. Chains-of-custody and other paperwork will be placed in a Ziploc® bag (or equivalent) and placed inside the cooler. The cooler will be taped closed and custody seals will be affixed to one side of the cooler at a minimum. If the samples are being shipped by an express delivery company (e.g. FedEx) then laboratory address labels will be placed on top of the cooler.

5.6.2 Shipping

Standard procedures to be followed for shipping environmental samples to the analytical laboratory are outlined below.

- All environmental samples will be transported to the laboratory by a laboratory-provided courier under the chain-of-custody protocols described in Section 5.9.
- Prior notice will be provided to the laboratory regarding when to expect shipped samples. If the number, type or date of shipment changes due to site constraints or program changes, the laboratory will be informed.

5.7 DECONTAMINATION PROCEDURES

Decontamination procedures will be used for non-dedicated sampling equipment. Decontamination of field personnel is discussed in the site-specific HASP appended to the RAWP. Field sampling equipment that is to be reused will be decontaminated in the field in accordance with the following procedures:

1. Laboratory-grade glassware detergent and tap water scrub to remove visual contamination
2. Generous tap water rinse
3. Distilled/de-ionized water rinse

5.8 RESIDUALS MANAGEMENT

Debris (e.g., paper, plastic and disposable PPE) will be collected in plastic garbage bags and disposed of as non-hazardous industrial waste. Debris is expected to be transported to a local municipal landfill for disposal. If applicable, residual solids (e.g., leftover soil cuttings) will be placed back in the borehole from which it was sampled. If gross contamination is observed, soil will be collected and stored in Department of Transportation (DOT)-approved 55-gallon drums in a designated storage area at the Site. The residual materials stored in a designated storage area at the site for further characterization, treatment or disposal.

Residual fluids (such as purge water) will be collected and stored in DOT-approved (or equivalent) 55-gallon drums in a designated storage area at the site. The residual fluids will be transported to the on-site wastewater treatment plant or analyzed, characterized and disposed off-site in accordance with applicable federal and state regulations. Residual fluids such as decontamination water may be discharged to the ground surface, however, if gross contamination is observed, the residual fluids will be collected, stored, and transported similar purge water or other residual fluids.

5.9 CHAIN OF CUSTODY PROCEDURES

A chain-of-custody protocol has been established for collected samples that will be followed during sample handling activities in both field and laboratory operations. The primary purpose of the chain-of-custody procedures is to document the possession of the samples from collection through shipping, storage and analysis to data reporting and disposal. Chain-of-custody refers to actual possession of the samples. Samples are considered to be in custody if they are within sight of the individual responsible for their security or locked in a secure location. Each person who takes possession of the samples, except the shipping courier, is responsible for sample integrity and safe keeping. Chain-of-custody procedures are provided below:

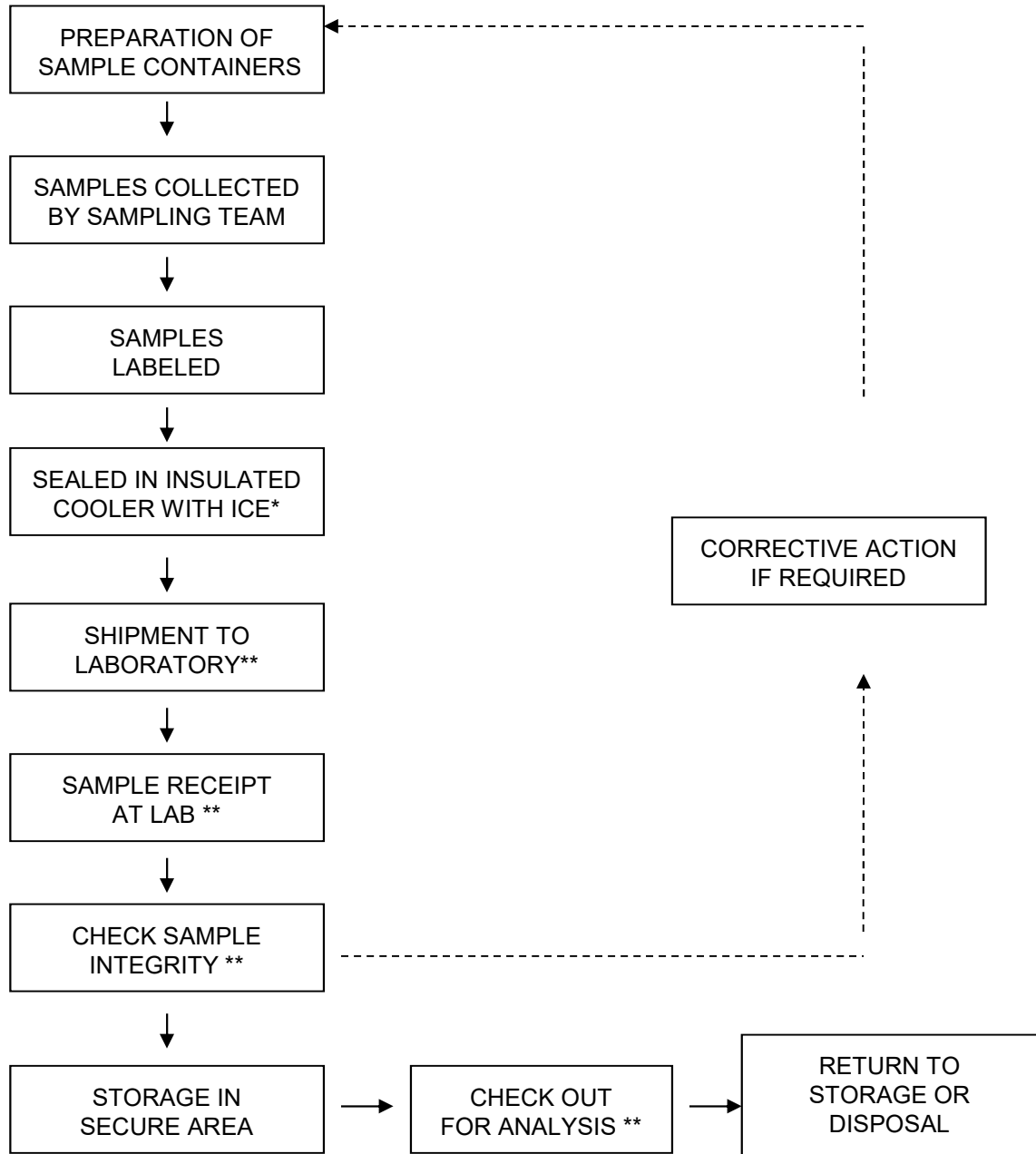
- Chain-of-custody will be initiated by the laboratory supplying the pre-cleaned and prepared sample containers. Chain-of-custody forms will accompany the sample containers.
- Following sample collection, the chain-of-custody form will be completed for the sample collected. The sample identification number, date and time of sample collection, analysis requested and other pertinent information (e.g., preservatives)

- will be recorded on the form. All entries will be made in waterproof, permanent blue or black ink.
- Langan field personnel will be responsible for the care and custody of the samples collected until the samples are transferred to another party, dispatched to the laboratory, or disposed. The sampling team leader will be responsible for enforcing chain-of-custody procedures during field work.
 - When the form is full or when all samples have been collected that will fit in a single cooler, the sampling team leader will check the form for possible errors and sign the chain-of-custody form. Any necessary corrections will be made to the record with a single strike mark, dated, and initialed.

If soil and/or groundwater samples are collected, sample coolers will be accompanied by the chain-of-custody form, sealed in a Ziploc[®] bag (or equivalent) and placed on top of the samples or taped to the inside of the cooler lid. If applicable, a shipping bill will be completed for each cooler and the shipping bill number recorded on the chain-of-custody form.


Samples will be packaged for shipment to the laboratory with the appropriate chain-of-custody form. A copy of the form will be retained by the sampling team for the project file and the original will be sent to the laboratory with the samples. Bills of lading will also be retained as part of the documentation for the chain-of-custody records, if applicable. When transferring custody of the samples, the individuals relinquishing and receiving custody of the samples will verify sample numbers and condition and will document the sample acquisition and transfer by signing and dating the chain-of-custody form. This process documents sample custody transfer from the sampler to the analytical laboratory. A flow chart showing a sample custody process is included as Figure 5.1, and chain-of-custody forms are included as Figures 5.2 and 5.3.

Figure 5.1 Sample Custody



*SUMMA CANISTERS SHOULD NOT BE ICED
** REQUIRES SIGN-OFF ON CHAIN-OF-CUSTODY FORM

Figure 5.3 Sample Chain-of-Custody Form – Soil and Groundwater

 NEW YORK CHAIN OF CUSTODY Westborough, MA 01581 8 Walnut Dr. TEL: 508-888-2320 FAX: 508-888-2193 Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-3300 FAX: 508-822-2388		Service Centers Mahwah, NJ 07480: 95 Whitney Rd, Suite 6 Albany, NY 12206: 14 Walker Way Tonawanda, NY 14150: 276 Cooper Ave, Suite 106		Project Information Project Name: Project Location: Project #		Page of		ALPHA Job #	
Client Information Client: Address: Phone: Fax: Email:		Project Information (Use Project name as Project #) <input type="checkbox"/> Project Manager: ALPHAQuote #: Turn-Around Time Standard <input type="checkbox"/> Due Date: Rush (only if pre approved) <input type="checkbox"/> # of Days:		Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other		Date Rec'd in Lab		Billing Information <input type="checkbox"/> Same as Client Info PO #	
These samples have been previously analyzed by Alpha <input type="checkbox"/> Other project specific requirements/comments:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWO Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:		ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below) Sample specific comments	
Preservative Code: A - None B - HCl C - HNO ₃ D - H ₂ SO ₄ E - NaOH F - MeOH G - NaHSO ₄ H - Na ₂ S ₂ O ₃ K/E - Zn Ac/NaOH O - Other		Container Code P - Plastic A - Amber Glass V - Vial G - Glass B - Bacteria Cup C - Cube O - Other		Westboro: Certification No: MA035 Mansfield: Certification No: MA015		Container Type Preservative		Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)	
Sample ID		Collection Date		Sample Matrix		Sampler's Initials		Date/Time	
Relinquished By:		Date/Time		Received By:		Date/Time		Form No: 01-25 HC (rev. 30-Sept-2013)	

Laboratory chain-of-custody will be maintained throughout the analytical processes as described in the laboratory's Quality Assurance Manual. The analytical laboratory will provide a copy of the chain-of-custody in the analytical data deliverable package. The chain-of-custody becomes the permanent record of sample handling and shipment.

5.10 LABORATORY SAMPLE STORAGE PROCEDURES

The subcontracted laboratory will use a laboratory information management system (LIMS) to track and schedule samples upon receipt by the analytical laboratories. Any sample anomalies identified during sample log-in must be evaluated on individual merit for the impact upon the results and the data quality objectives of the project. When irregularities do exist, the environmental consultant must be notified to discuss recommended courses of action and documentation of the issue must be included in the project file.

For samples requiring thermal preservation, the temperature of each cooler will be immediately recorded. Each sample and container will be assigned a unique laboratory identification number and secured within the custody room walk-in coolers designated for new samples. Samples will be, as soon as practical, disbursed in a manner that is functional for the operational team. The temperature of all coolers and freezers will be monitored and recorded using a certified temperature sensor. Any temperature excursions outside of acceptance criteria (i.e., below 2°C or above 6°C) will initiate an investigation to determine whether any samples may have been affected. Samples for VOCs will be maintained in satellite storage areas within the VOC laboratory. Following analysis, the laboratory's specific procedures for retention and disposal will be followed as specified in the laboratory's SOPs and/or QA manual.

6.0 DATA REDUCTION, VALIDATION, AND REPORTING

6.1 INTRODUCTION

Data collected during the field investigation will be reduced and reviewed by the laboratory QA personnel, and a report on the findings will be tabulated in a standard format. The criteria used to identify and quantify the analytes will be those specified for the applicable methods in the USEPA SW-846 and subsequent updates. The data package provided by the laboratory will contain all items specified in the USEPA SW-846 appropriate for the analyses to be performed, and be reported in standard format.

The completed copies of the chain-of-custody records (both external and internal) accompanying each sample from time of initial bottle preparation to completion of analysis shall be attached to the analytical reports.

6.2 DATA REDUCTION

The Analytical Services Protocol (ASP) Category B data packages and an electronic data deliverable (EDD) will be provided by the laboratory after receipt of a complete sample delivery group. The Project Manager will immediately arrange for archiving the results and preparation of result tables. These tables will form the database for assessment of the site contamination condition.

Each EDD deliverable must be formatted using a Microsoft Windows operating system and the NYSDEC data deliverable format for EQulS. To avoid transcription errors, data will be loaded directly into the ASCII format from the laboratory information management system (LIMS). If this cannot be accomplished, the consultant should be notified via letter of transmittal indicating that manual entry of data is required for a particular method of analysis. All EDDs must also undergo a QC check by the laboratory before delivery. The original data, tabulations, and electronic media are stored in a secure and retrievable fashion.

The Project Manager or Task Manager will maintain close contact with the QA reviewer to ensure all non-conformance issues are acted upon prior to data manipulation and assessment routines. Once the QA review has been completed, the Project Manager may direct the Team Leaders or others to initiate and finalize the analytical data assessment.

6.3 DATA VALIDATION

Data validation will be performed in accordance with the USEPA validation guidelines for organic and inorganic data review. Validation will include the following:

- Verification of the QC sample results,
- Verification of the identification of sample results (both positive hits and non-detects),
- Recalculation of 10% of all investigative sample results, and
- Preparation of Data Usability Summary Reports (DUSR).

A DUSR will be prepared and reviewed by the QAO before issuance. The DUSR will present the results of data validation, including a summary assessment of laboratory data packages, sample preservation and COC procedures, and a summary assessment of precision, accuracy, representativeness, comparability, and completeness for each analytical method. A detailed assessment of each SDG will follow. For each of the organic analytical methods, the following will be assessed:

- Holding times
- Instrument tuning
- Instrument calibrations
- Blank results
- System monitoring compounds or surrogate recovery compounds (as applicable)
- Internal standard recovery results
- MS and MSD results
- Target compound identification
- Chromatogram quality
- Pesticide cleanup (if applicable)
- Compound quantitation and reported detection limits
- System performance
- Results verification

For each of the inorganic compounds, the following will be assessed:

- Holding times
- Calibrations
- Blank results
- Interference check sample
- Laboratory check samples
- Duplicates
- Matrix Spike
- Furnace atomic absorption analysis QC
- ICP serial dilutions
- Results verification and reported detection limits

Based on the results of data validation, the validated analytical results reported by the laboratory will be assigned one of the following usability flags:

- "U" - Not detected. The associated number indicates the approximate sample concentration necessary to be detected significantly greater than the level of the highest associated blank;
- "UJ" - Not detected. Quantitation limit may be inaccurate or imprecise;
- "J" - Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method
- "N" – Tentative identification. Analyte is considered present in the sample;
- "R" – Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample; and
- No Flag - Result accepted without qualification.

7.0 QUALITY ASSURANCE PERFORMANCE AUDITS AND SYSTEM AUDITS

7.1 INTRODUCTION

Quality assurance audits may be performed by the project quality assurance group under the direction and approval of the QAO. These audits will be implemented to evaluate the capability and performance of project and subcontractor personnel, items, activities, and documentation of the measurement system(s). Functioning as an independent body and reporting directly to corporate quality assurance management, the QAO may plan, schedule, and approve system and performance audits based upon procedures customized to the project requirements. At times, the QAO may request additional personnel with specific expertise from company and/or project groups to assist in conducting performance audits. However, these personnel will not have responsibility for the project work associated with the performance audit.

7.2 SYSTEM AUDITS

System audits may be performed by the QAO or designated auditors, and encompass a qualitative evaluation of measurement system components to ascertain their appropriate selection and application. In addition, field and laboratory quality control procedures and associated documentation may be system audited. These audits may be performed once during the performance of the project. However, if conditions adverse to quality are detected or if the Project Manager requests, additional audits may occur.

7.3 PERFORMANCE AUDITS

The laboratory may be required to conduct an analysis of Performance Evaluation samples or provide proof that Performance Evaluation samples submitted by USEPA or a state agency have been analyzed within the past twelve months.

7.4 FORMAL AUDITS

Formal audits refer to any system or performance audit that is documented and implemented by the QA group. These audits encompass documented activities performed by qualified lead auditors to a written procedure or checklists to objectively verify that quality assurance requirements have been developed, documented, and instituted in accordance with contractual and project criteria. Formal audits may be performed on project and subcontractor work at various locations.

Audit reports will be written by auditors who have performed the site audit after gathering and evaluating all data. Items, activities, and documents determined by lead auditors to be in noncompliance shall be identified at exit interviews conducted with the involved management. Non-compliances will be logged, and documented through audit findings, which are attached to and are a part of the integral audit report. These audit-finding forms are directed to management to satisfactorily resolve the noncompliance in a specified and timely manner.

The Project Manager has overall responsibility to ensure that all corrective actions necessary to resolve audit findings are acted upon promptly and satisfactorily. Audit reports must be submitted to the Project Manager within fifteen days of completion of the audit. Serious deficiencies will be reported to the Project Manager within 24 hours. All audit checklists, audit reports, audit findings, and acceptable resolutions are approved by the QAO prior to issue. Verification of acceptable resolutions may be determined by re-audit or documented surveillance of the item or activity. Upon verification acceptance, the QAO will close out the audit report and findings.

8.0 CORRECTIVE ACTION

8.1 INTRODUCTION

The following procedures have been established to ensure that conditions adverse to quality, such as malfunctions, deficiencies, deviations, and errors, are promptly investigated, documented, evaluated, and corrected.

8.2 PROCEDURE DESCRIPTION

When a significant condition adverse to quality is noted at site, laboratory, or subcontractor location, the cause of the condition will be determined and corrective action will be taken to preclude repetition. Condition identification, cause, reference documents, and corrective action planned to be taken will be documented and reported to the QAO, Project Manager, Field Team Leader and involved contractor management, at a minimum. Implementation of corrective action is verified by documented follow-up action.

All project personnel have the responsibility, as part of the normal work duties, to promptly identify, solicit approved correction, and report conditions adverse to quality. Corrective actions will be initiated as follows:

- When predetermined acceptance standards are not attained;
- When procedure or data compiled are determined to be deficient;
- When equipment or instrumentation is found to be faulty;
- When samples and analytical test results are not clearly traceable;
- When quality assurance requirements have been violated;
- When designated approvals have been circumvented;
- As a result of system and performance audits;
- As a result of a management assessment;
- As a result of laboratory/field comparison studies; and
- As required by USEPA SW-846, and subsequent updates, or by the NYSDEC ASP.

Project management and staff, such as field investigation teams, remedial response planning personnel, and laboratory groups, monitor on-going work performance in the normal course of daily responsibilities. Work may be audited at the sites, laboratories, or

contractor locations. Activities, or documents ascertained to be noncompliant with quality assurance requirements will be documented. Corrective actions will be mandated through audit finding sheets attached to the audit report. Audit findings are logged, maintained, and controlled by the Task Manager.

Personnel assigned to quality assurance functions will have the responsibility to issue and control Corrective Action Request (CAR) Forms (Figure 12.1 or similar). The CAR identifies the out-of-compliance condition, reference document(s), and recommended corrective action(s) to be administered. The CAR is issued to the personnel responsible for the affected item or activity. A copy is also submitted to the Project Manager. The individual to whom the CAR is addressed returns the requested response promptly to the QA personnel, affixing his/her signature and date to the corrective action block, after stating the cause of the conditions and corrective action to be taken. The QA personnel maintain the log for status of CARs, confirms the adequacy of the intended corrective action, and verifies its implementation. CARs will be retained in the project file for the records.

Any project personnel may identify noncompliance issues; however, the designated QA personnel are responsible for documenting, numbering, logging, and verifying the close out action. The Project Manager will be responsible for ensuring that all recommended corrective actions are implemented, documented, and approved.

FIGURE 8.1

CORRECTIVE ACTION REQUEST					
Number: _____		Date: _____			
TO: _____ You are hereby requested to take corrective actions indicated below and as otherwise determined by you to (a) resolve the noted condition and (b) to prevent it from recurring. Your written response is to be returned to the project quality assurance manager by _____					
CONDITION:					
REFERENCE DOCUMENTS:					
RECOMMENDED CORRECTIVE ACTIONS:					
_____	_____	_____	_____	_____	_____
Originator	Date	Approval	Date	Approval	Date
RESPONSE					
CAUSE OF CONDITION					
CORRECTIVE ACTION					
(A) RESOLUTION					
(B) PREVENTION					
(C) AFFECTED DOCUMENTS					
C.A. FOLLOWUP:					

Quality Assurance Project Plan
Gerard Avenue and East 146 Street Site
417 and 445 Gerard Avenue, 440 Major Wm Deegan
Blvd
Bronx, New York
Project No. 170487003

CORRECTIVE ACTION VERIFIED BY: _____ DATE: _____

9.0 REFERENCES

- NYSDEC. Division of Environmental Remediation. DER-10/Technical Guidance for Site Investigation and Remediation, dated May 3, 2010.
- NYSDOH. Final Guidance for Evaluating Soil Vapor Intrusion in the State of New York, dated October 2006.
- Taylor, J. K., 1987. Quality Assurance of Chemical Measurements. Lewis Publishers, Inc., Chelsea, Michigan
- USEPA, 1986. SW-846 "Test Method for Evaluating Solid Waste," dated November 1986. U.S. Environmental Protection Agency, Washington, D.C.
- USEPA, 1987. Data Quality Objectives for Remedial Response Actions Activities: Development Process, EPA/540/G-87/003, OSWER Directive 9355.0-7- U.S. Environmental Protection Agency, Washington, D.C.
- USEPA, 1992a. CLP Organics Data Review and Preliminary Review. SOP No. HW-6, Revision #8, dated January 1992. USEPA Region II.
- USEPA, 1992b. Evaluation of Metals Data for the Contract Laboratory Program (CLP) based on SOW 3/90. SOP No. HW-2, Revision XI, dated January 1992. USEPA Region II.
- USEPA. Hazardous Waste Support Section. Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15. SOP No. HW-31, Revision #6, dated June 2014.

APPENDIX B

SOIL SAMPLES
LABORATORY REPORTING LIMITS AND METHOD DETECTION LIMITS

Method	Matrix	Analyte	RL	MDL	Units
Volatile Organic Compounds					
EPA 8260C/5035	Soil	1,1,1,2-Tetrachloroethane	0.001	0.000318	mg/kg
EPA 8260C/5035	Soil	1,1,1-Trichloroethane	0.001	0.0001108	mg/kg
EPA 8260C/5035	Soil	1,1,2,2-Tetrachloroethane	0.001	0.0001008	mg/kg
EPA 8260C/5035	Soil	1,1,2-Trichloro-1,2,2-Trifluoroethane	0.02	0.000274	mg/kg
EPA 8260C/5035	Soil	1,1,2-Trichloroethane	0.0015	0.000304	mg/kg
EPA 8260C/5035	Soil	1,1-Dichloroethane	0.0015	0.0000856	mg/kg
EPA 8260C/5035	Soil	1,1-Dichloroethene	0.001	0.000262	mg/kg
EPA 8260C/5035	Soil	1,1-Dichloropropene	0.005	0.0001414	mg/kg
EPA 8260C/5035	Soil	1,2,3-Trichlorobenzene	0.005	0.0001476	mg/kg
EPA 8260C/5035	Soil	1,2,3-Trichloropropane	0.01	0.0001626	mg/kg
EPA 8260C/5035	Soil	1,2,4,5-Tetramethylbenzene	0.004	0.0001302	mg/kg
EPA 8260C/5035	Soil	1,2,4-Trichlorobenzene	0.005	0.0001818	mg/kg
EPA 8260C/5035	Soil	1,2,4-Trimethylbenzene	0.005	0.0001414	mg/kg
EPA 8260C/5035	Soil	1,2-Dibromo-3-chloropropane	0.005	0.000396	mg/kg
EPA 8260C/5035	Soil	1,2-Dibromoethane	0.004	0.0001744	mg/kg
EPA 8260C/5035	Soil	1,2-Dichlorobenzene	0.005	0.0001532	mg/kg
EPA 8260C/5035	Soil	1,2-Dichloroethane	0.001	0.0001134	mg/kg
EPA 8260C/5035	Soil	1,2-Dichloropropane	0.0035	0.000228	mg/kg
EPA 8260C/5035	Soil	1,3,5-Trimethylbenzene	0.005	0.0001434	mg/kg
EPA 8260C/5035	Soil	1,3-Dichlorobenzene	0.005	0.000135	mg/kg
EPA 8260C/5035	Soil	1,3-Dichloropropane	0.005	0.0001452	mg/kg
EPA 8260C/5035	Soil	1,4-Dichlorobenzene	0.005	0.0001384	mg/kg
EPA 8260C/5035	Soil	1,4-Diethylbenzene	0.004	0.0001598	mg/kg
EPA 8260C/5035	Soil	1,4-Dioxane	0.1	0.01442	mg/kg
EPA 8260C/5035	Soil	2,2-Dichloropropane	0.005	0.000226	mg/kg
EPA 8260C/5035	Soil	2-Butanone	0.01	0.000272	mg/kg
EPA 8260C/5035	Soil	2-Hexanone	0.01	0.000666	mg/kg
EPA 8260C/5035	Soil	4-Ethyltoluene	0.004	0.000124	mg/kg
EPA 8260C/5035	Soil	4-Methyl-2-pentanone	0.01	0.000244	mg/kg
EPA 8260C/5035	Soil	Acetone	0.01	0.001036	mg/kg
EPA 8260C/5035	Soil	Acrolein	0.025	0.00806	mg/kg
EPA 8260C/5035	Soil	Acrylonitrile	0.01	0.000514	mg/kg
EPA 8260C/5035	Soil	Benzene	0.001	0.000118	mg/kg
EPA 8260C/5035	Soil	Bromobenzene	0.005	0.000208	mg/kg
EPA 8260C/5035	Soil	Bromochloromethane	0.005	0.000276	mg/kg
EPA 8260C/5035	Soil	Bromodichloromethane	0.001	0.0001732	mg/kg
EPA 8260C/5035	Soil	Bromoform	0.004	0.000236	mg/kg
EPA 8260C/5035	Soil	Bromomethane	0.002	0.000338	mg/kg
EPA 8260C/5035	Soil	Carbon disulfide	0.01	0.001102	mg/kg
EPA 8260C/5035	Soil	Carbon tetrachloride	0.001	0.00021	mg/kg
EPA 8260C/5035	Soil	Chlorobenzene	0.001	0.000348	mg/kg
EPA 8260C/5035	Soil	Chloroethane	0.002	0.000316	mg/kg
EPA 8260C/5035	Soil	Chloroform	0.0015	0.00037	mg/kg
EPA 8260C/5035	Soil	Chloromethane	0.005	0.000294	mg/kg
EPA 8260C/5035	Soil	cis-1,2-Dichloroethene	0.001	0.0001428	mg/kg
EPA 8260C/5035	Soil	cis-1,3-Dichloropropene	0.001	0.0001176	mg/kg
EPA 8260C/5035	Soil	Cyclohexane	0.02	0.000146	mg/kg
EPA 8260C/5035	Soil	Dibromochloromethane	0.001	0.0001536	mg/kg
EPA 8260C/5035	Soil	Dibromomethane	0.01	0.0001636	mg/kg
EPA 8260C/5035	Soil	Dichlorodifluoromethane	0.01	0.0001908	mg/kg
EPA 8260C/5035	Soil	Ethyl ether	0.005	0.00026	mg/kg
EPA 8260C/5035	Soil	Ethylbenzene	0.001	0.0001274	mg/kg
EPA 8260C/5035	Soil	Hexachlorobutadiene	0.005	0.000228	mg/kg
EPA 8260C/5035	Soil	Isopropylbenzene	0.001	0.0001038	mg/kg
EPA 8260C/5035	Soil	Methyl Acetate	0.02	0.00027	mg/kg
EPA 8260C/5035	Soil	Methyl cyclohexane	0.004	0.0001546	mg/kg
EPA 8260C/5035	Soil	Methyl tert butyl ether	0.002	0.0000844	mg/kg
EPA 8260C/5035	Soil	Methylene chloride	0.01	0.001104	mg/kg
EPA 8260C/5035	Soil	Naphthalene	0.005	0.0001384	mg/kg
EPA 8260C/5035	Soil	n-Butylbenzene	0.001	0.0001148	mg/kg
EPA 8260C/5035	Soil	n-Propylbenzene	0.001	0.0001092	mg/kg
EPA 8260C/5035	Soil	o-Chlorotoluene	0.005	0.0001598	mg/kg
EPA 8260C/5035	Soil	o-Xylene	0.002	0.0001718	mg/kg
EPA 8260C/5035	Soil	p/m-Xylene	0.002	0.0001978	mg/kg
EPA 8260C/5035	Soil	p-Chlorotoluene	0.005	0.0001328	mg/kg
EPA 8260C/5035	Soil	p-Isopropyltoluene	0.001	0.000125	mg/kg
EPA 8260C/5035	Soil	sec-Butylbenzene	0.001	0.000122	mg/kg
EPA 8260C/5035	Soil	Styrene	0.002	0.000402	mg/kg
EPA 8260C/5035	Soil	tert-Butyl Alcohol	0.06	0.00292	mg/kg
EPA 8260C/5035	Soil	tert-Butylbenzene	0.005	0.0001354	mg/kg
EPA 8260C/5035	Soil	Tetrachloroethene	0.001	0.0001402	mg/kg
EPA 8260C/5035	Soil	Toluene	0.0015	0.0001948	mg/kg
EPA 8260C/5035	Soil	trans-1,2-Dichloroethene	0.0015	0.000212	mg/kg
EPA 8260C/5035	Soil	trans-1,3-Dichloropropene	0.001	0.0001208	mg/kg
EPA 8260C/5035	Soil	trans-1,4-Dichloro-2-butene	0.005	0.000392	mg/kg
EPA 8260C/5035	Soil	Trichloroethene	0.001	0.000125	mg/kg
EPA 8260C/5035	Soil	Trichlorofluoromethane	0.005	0.000388	mg/kg

APPENDIX B

SOIL SAMPLES
LABORATORY REPORTING LIMITS AND METHOD DETECTION LIMITS

Method	Matrix	Analyte	RL	MDL	Units
EPA 8260C/5035	Soil	Vinyl acetate	0.01	0.0001322	mg/kg
EPA 8260C/5035	Soil	Vinyl chloride	0.002	0.0001174	mg/kg
EPA 8260C/5035	Soil	Xylenes, Total	0.002	0.0001978	mg/kg

APPENDIX B

SOIL SAMPLES
LABORATORY REPORTING LIMITS AND METHOD DETECTION LIMITS

Method	Matrix	Analyte	RL	MDL	Units
Semivolatile Organic Compounds					
EPA 8270D	Soil	1,2,4,5-Tetrachlorobenzene	0.1665	0.0515817	mg/kg
EPA 8270D	Soil	1,2,4-Trichlorobenzene	0.1665	0.0545787	mg/kg
EPA 8270D	Soil	1,2-Dichlorobenzene	0.1665	0.0546453	mg/kg
EPA 8270D	Soil	1,3-Dichlorobenzene	0.1665	0.0524808	mg/kg
EPA 8270D	Soil	1,4-Dichlorobenzene	0.1665	0.050616	mg/kg
EPA 8270D	Soil	2,3,4,6-Tetrachlorophenol	0.1665	0.028305	mg/kg
EPA 8270D	Soil	2,4,5-Trichlorophenol	0.1665	0.053946	mg/kg
EPA 8270D	Soil	2,4,6-Trichlorophenol	0.0999	0.0314019	mg/kg
EPA 8270D	Soil	2,4-Dichlorophenol	0.14985	0.053946	mg/kg
EPA 8270D	Soil	2,4-Dimethylphenol	0.1665	0.049617	mg/kg
EPA 8270D	Soil	2,4-Dinitrophenol	0.7992	0.227772	mg/kg
EPA 8270D	Soil	2,4-Dinitrotoluene	0.1665	0.0359307	mg/kg
EPA 8270D	Soil	2,6-Dinitrotoluene	0.1665	0.042624	mg/kg
EPA 8270D	Soil	2-Chloronaphthalene	0.1665	0.054279	mg/kg
EPA 8270D	Soil	2-Chlorophenol	0.1665	0.050283	mg/kg
EPA 8270D	Soil	2-Methylnaphthalene	0.1998	0.0531801	mg/kg
EPA 8270D	Soil	2-Methylphenol	0.1665	0.053613	mg/kg
EPA 8270D	Soil	2-Nitroaniline	0.1665	0.046953	mg/kg
EPA 8270D	Soil	2-Nitrophenol	0.35964	0.051948	mg/kg
EPA 8270D	Soil	3,3'-Dichlorobenzidine	0.1665	0.044289	mg/kg
EPA 8270D	Soil	3-Methylphenol/4-Methylphenol	0.23976	0.054612	mg/kg
EPA 8270D	Soil	3-Nitroaniline	0.1665	0.045954	mg/kg
EPA 8270D	Soil	4,6-Dinitro-o-cresol	0.4329	0.060939	mg/kg
EPA 8270D	Soil	4-Bromophenyl phenyl ether	0.1665	0.038295	mg/kg
EPA 8270D	Soil	4-Chloroaniline	0.1665	0.043956	mg/kg
EPA 8270D	Soil	4-Chlorophenyl phenyl ether	0.1665	0.0506493	mg/kg
EPA 8270D	Soil	4-Nitroaniline	0.1665	0.044955	mg/kg
EPA 8270D	Soil	4-Nitrophenol	0.2331	0.053946	mg/kg
EPA 8270D	Soil	Acenaphthene	0.1332	0.034299	mg/kg
EPA 8270D	Soil	Acenaphthylene	0.1332	0.0311355	mg/kg
EPA 8270D	Soil	Acetophenone	0.1665	0.051615	mg/kg
EPA 8270D	Soil	Anthracene	0.0999	0.0277056	mg/kg
EPA 8270D	Soil	Atrazine	0.1332	0.0377289	mg/kg
EPA 8270D	Soil	Azobenzene	0.1665	0.044622	mg/kg
EPA 8270D	Soil	Benzaldehyde	0.21978	0.067266	mg/kg
EPA 8270D	Soil	Benzidine	0.54945	0.130203	mg/kg
EPA 8270D	Soil	Benzo(a)anthracene	0.0999	0.0326007	mg/kg
EPA 8270D	Soil	Benzo(a)pyrene	0.1332	0.0407259	mg/kg
EPA 8270D	Soil	Benzo(b)fluoranthene	0.0999	0.033633	mg/kg
EPA 8270D	Soil	Benzo(ghi)perylene	0.1332	0.034632	mg/kg
EPA 8270D	Soil	Benzo(k)fluoranthene	0.0999	0.0317682	mg/kg
EPA 8270D	Soil	Benzoic Acid	0.53946	0.168498	mg/kg
EPA 8270D	Soil	Benzyl Alcohol	0.1665	0.051282	mg/kg
EPA 8270D	Soil	Biphenyl	0.37962	0.0549117	mg/kg
EPA 8270D	Soil	Bis(2-chloroethoxy)methane	0.17982	0.0504162	mg/kg
EPA 8270D	Soil	Bis(2-chloroethyl)ether	0.14985	0.0466866	mg/kg
EPA 8270D	Soil	Bis(2-chloroisopropyl)ether	0.1998	0.058608	mg/kg
EPA 8270D	Soil	Bis(2-Ethylhexyl)phthalate	0.1665	0.043623	mg/kg
EPA 8270D	Soil	Butyl benzyl phthalate	0.1665	0.0325341	mg/kg
EPA 8270D	Soil	Caprolactam	0.1665	0.045954	mg/kg
EPA 8270D	Soil	Carbazole	0.1665	0.0357975	mg/kg
EPA 8270D	Soil	Chrysene	0.0999	0.0327006	mg/kg
EPA 8270D	Soil	Dibenzo(a,h)anthracene	0.0999	0.0322344	mg/kg
EPA 8270D	Soil	Dibenzofuran	0.1665	0.0555777	mg/kg
EPA 8270D	Soil	Diethyl phthalate	0.1665	0.0351981	mg/kg
EPA 8270D	Soil	Dimethyl phthalate	0.1665	0.042291	mg/kg
EPA 8270D	Soil	Di-n-butylphthalate	0.1665	0.0321345	mg/kg
EPA 8270D	Soil	Di-n-octylphthalate	0.1665	0.040959	mg/kg
EPA 8270D	Soil	Fluoranthene	0.0999	0.0305694	mg/kg
EPA 8270D	Soil	Fluorene	0.1665	0.0477189	mg/kg
EPA 8270D	Soil	Hexachlorobenzene	0.0999	0.0310356	mg/kg
EPA 8270D	Soil	Hexachlorobutadiene	0.1665	0.046953	mg/kg
EPA 8270D	Soil	Hexachlorocyclopentadiene	0.47619	0.106893	mg/kg
EPA 8270D	Soil	Hexachloroethane	0.1332	0.0302697	mg/kg
EPA 8270D	Soil	Indeno(1,2,3-cd)Pyrene	0.1332	0.036963	mg/kg
EPA 8270D	Soil	Isophorone	0.14985	0.044289	mg/kg
EPA 8270D	Soil	Naphthalene	0.1665	0.055278	mg/kg
EPA 8270D	Soil	Nitrobenzene	0.14985	0.039627	mg/kg
EPA 8270D	Soil	NitrosoDiPhenylAmine(NDPA)/DPA	0.1332	0.034965	mg/kg
EPA 8270D	Soil	n-Nitrosodimethylamine	0.333	0.0539127	mg/kg
EPA 8270D	Soil	n-Nitrosodi-n-propylamine	0.1665	0.049617	mg/kg
EPA 8270D	Soil	P-Chloro-M-Cresol	0.1665	0.048285	mg/kg
EPA 8270D	Soil	Pentachlorophenol	0.1332	0.035631	mg/kg
EPA 8270D	Soil	Phenanthrene	0.0999	0.0325674	mg/kg
EPA 8270D	Soil	Phenol	0.1665	0.049284	mg/kg
EPA 8270D	Soil	Pyrene	0.0999	0.0323676	mg/kg

APPENDIX B

SOIL SAMPLES
LABORATORY REPORTING LIMITS AND METHOD DETECTION LIMITS

Method	Matrix	Analyte	RL	MDL	Units
Pesticides					
EPA 8081B	Soil	4,4'-DDD	0.007992	0.00285048	mg/kg
EPA 8081B	Soil	4,4'-DDE	0.007992	0.00184815	mg/kg
EPA 8081B	Soil	4,4'-DDT	0.014985	0.0064269	mg/kg
EPA 8081B	Soil	Aldrin	0.007992	0.00281385	mg/kg
EPA 8081B	Soil	Alpha-BHC	0.00333	0.00094572	mg/kg
EPA 8081B	Soil	Beta-BHC	0.007992	0.0030303	mg/kg
EPA 8081B	Soil	Chlordane	0.064935	0.0264735	mg/kg
EPA 8081B	Soil	cis-Chlordane	0.00999	0.00278388	mg/kg
EPA 8081B	Soil	Delta-BHC	0.007992	0.0015651	mg/kg
EPA 8081B	Soil	Dieldrin	0.004995	0.0024975	mg/kg
EPA 8081B	Soil	Endosulfan I	0.007992	0.00188811	mg/kg
EPA 8081B	Soil	Endosulfan II	0.007992	0.00267066	mg/kg
EPA 8081B	Soil	Endosulfan sulfate	0.00333	0.00158508	mg/kg
EPA 8081B	Soil	Endrin	0.00333	0.0013653	mg/kg
EPA 8081B	Soil	Endrin aldehyde	0.00999	0.0034965	mg/kg
EPA 8081B	Soil	Endrin ketone	0.007992	0.00205794	mg/kg
EPA 8081B	Soil	Heptachlor	0.003996	0.00179154	mg/kg
EPA 8081B	Soil	Heptachlor epoxide	0.014985	0.0044955	mg/kg
EPA 8081B	Soil	Lindane	0.00333	0.00148851	mg/kg
EPA 8081B	Soil	Methoxychlor	0.014985	0.004662	mg/kg
EPA 8081B	Soil	Toxaphene	0.14985	0.041958	mg/kg
EPA 8081B	Soil	trans-Chlordane	0.00999	0.00263736	mg/kg
Polychlorinated Biphenyls					
EPA 8082A	Soil	Aroclor 1016	0.0335	0.0026465	mg/kg
EPA 8082A	Soil	Aroclor 1221	0.0335	0.0030887	mg/kg
EPA 8082A	Soil	Aroclor 1232	0.0335	0.0039262	mg/kg
EPA 8082A	Soil	Aroclor 1242	0.0335	0.0041004	mg/kg
EPA 8082A	Soil	Aroclor 1248	0.0335	0.0028274	mg/kg
EPA 8082A	Soil	Aroclor 1254	0.0335	0.0027537	mg/kg
EPA 8082A	Soil	Aroclor 1260	0.0335	0.0025527	mg/kg
EPA 8082A	Soil	Aroclor 1262	0.0335	0.0016616	mg/kg
EPA 8082A	Soil	Aroclor 1268	0.0335	0.0048575	mg/kg
EPA 8082A	Soil	Total PCBs	0.0335	0.0016616	mg/kg
Herbicides					
EPA 8151A	Soil	2,4-D	0.1665	0.0051615	mg/kg
EPA 8151A	Soil	2,4,5-TP (Silvex)	0.1665	0.0044289	mg/kg
EPA 8151A	Soil	2,4,5-T	0.1665	0.0104895	mg/kg
Metals					
EPA 6010C	Soil	Aluminum	4	0.8	mg/kg
EPA 6010C	Soil	Antimony	2	0.32	mg/kg
EPA 6010C	Soil	Arsenic	0.4	0.08	mg/kg
EPA 6010C	Soil	Barium	0.4	0.12	mg/kg
EPA 6010C	Soil	Beryllium	0.2	0.04	mg/kg
EPA 6010C	Soil	Cadmium	0.4	0.028	mg/kg
EPA 6010C	Soil	Calcium	4	1.2	mg/kg
EPA 6010C	Soil	Chromium	0.4	0.08	mg/kg
EPA 7196A	Soil	Hexavalent Chromium	0.8	0.16	mg/kg
EPA 6010C	Soil	Cobalt	0.8	0.2	mg/kg
EPA 6010C	Soil	Copper	0.4	0.08	mg/kg
EPA 6010C	Soil	Iron	2	0.8	mg/kg
EPA 6010C	Soil	Lead	2	0.08	mg/kg
EPA 6010C	Soil	Magnesium	4	0.4	mg/kg
EPA 6010C	Soil	Manganese	0.4	0.08	mg/kg
EPA 7473	Soil	Mercury	0.08	0.016896	mg/kg
EPA 6010C	Soil	Nickel	1	0.16	mg/kg
EPA 6010C	Soil	Potassium	100	16	mg/kg
EPA 6010C	Soil	Selenium	0.8	0.12	mg/kg
EPA 6010C	Soil	Silver	0.4	0.08	mg/kg
EPA 6010C	Soil	Sodium	80	12	mg/kg
EPA 6010C	Soil	Thallium	0.8	0.16	mg/kg
EPA 6010C	Soil	Vanadium	0.4	0.04	mg/kg
EPA 6010C	Soil	Zinc	2	0.28	mg/kg

ATTACHMENT B

GROUNDWATER SAMPLES
LABORATORY REPORTING LIMITS AND METHOD DETECTION LIMITS

Method	Matrix	Analyte	RL	MDL	Units
Volatile Organic Compounds					
EPA 8260C	Groundwater	1,1,1,2-Tetrachloroethane	0.5	0.164	ug/L
EPA 8260C	Groundwater	1,1,1-Trichloroethane	0.5	0.158	ug/L
EPA 8260C	Groundwater	1,1,2,2-Tetrachloroethane	0.5	0.144	ug/L
EPA 8260C	Groundwater	1,1,2-Trichloro-1,2,2-Trifluoroethane	10	0.148	ug/L
EPA 8260C	Groundwater	1,1,2-Trichloroethane	0.75	0.144	ug/L
EPA 8260C	Groundwater	1,1-Dichloroethane	0.75	0.21	ug/L
EPA 8260C	Groundwater	1,1-Dichloroethene	0.5	0.142	ug/L
EPA 8260C	Groundwater	1,1-Dichloropropene	2.5	0.173	ug/L
EPA 8260C	Groundwater	1,2,3-Trichlorobenzene	2.5	0.234	ug/L
EPA 8260C	Groundwater	1,2,3-Trichloropropane	5	0.176	ug/L
EPA 8260C	Groundwater	1,2,4,5-Tetramethylbenzene	2	0.542	ug/L
EPA 8260C	Groundwater	1,2,4-Trichlorobenzene	2.5	0.22	ug/L
EPA 8260C	Groundwater	1,2,4-Trimethylbenzene	2.5	0.191	ug/L
EPA 8260C	Groundwater	1,2-Dibromo-3-chloropropane	2.5	0.327	ug/L
EPA 8260C	Groundwater	1,2-Dibromoethane	2	0.193	ug/L
EPA 8260C	Groundwater	1,2-Dichlorobenzene	2.5	0.184	ug/L
EPA 8260C	Groundwater	1,2-Dichloroethane	0.5	0.132	ug/L
EPA 8260C	Groundwater	1,2-Dichloropropane	1.75	0.133	ug/L
EPA 8260C	Groundwater	1,3,5-Trimethylbenzene	2.5	0.174	ug/L
EPA 8260C	Groundwater	1,3-Dichlorobenzene	2.5	0.186	ug/L
EPA 8260C	Groundwater	1,3-Dichloropropane	2.5	0.212	ug/L
EPA 8260C	Groundwater	1,4-Dichlorobenzene	2.5	0.187	ug/L
EPA 8260C	Groundwater	1,4-Diethylbenzene	2	0.392	ug/L
EPA 8260C	Groundwater	2,2-Dichloropropane	2.5	0.204	ug/L
EPA 8260C	Groundwater	2-Butanone	5	1.94	ug/L
EPA 8260C	Groundwater	2-Hexanone	5	0.515	ug/L
EPA 8260C	Groundwater	4-Ethyltoluene	2	0.34	ug/L
EPA 8260C	Groundwater	4-Methyl-2-pentanone	5	0.416	ug/L
EPA 8260C	Groundwater	Acetone	5	1.46	ug/L
EPA 8260C	Groundwater	Acrolein	5	0.633	ug/L
EPA 8260C	Groundwater	Acrylonitrile	5	0.43	ug/L
EPA 8260C	Groundwater	Benzene	0.5	0.159	ug/L
EPA 8260C	Groundwater	Bromobenzene	2.5	0.152	ug/L
EPA 8260C	Groundwater	Bromochloromethane	2.5	0.138	ug/L
EPA 8260C	Groundwater	Bromodichloromethane	0.5	0.192	ug/L
EPA 8260C	Groundwater	Bromoform	2	0.248	ug/L
EPA 8260C	Groundwater	Bromomethane	1	0.256	ug/L
EPA 8260C	Groundwater	Carbon disulfide	5	0.299	ug/L
EPA 8260C	Groundwater	Carbon tetrachloride	0.5	0.134	ug/L
EPA 8260C	Groundwater	Chlorobenzene	0.5	0.178	ug/L
EPA 8260C	Groundwater	Chloroethane	1	0.134	ug/L
EPA 8260C	Groundwater	Chloroform	0.75	0.182	ug/L
EPA 8260C	Groundwater	Chloromethane	2.5	0.176	ug/L
EPA 8260C	Groundwater	cis-1,2-Dichloroethene	0.5	0.187	ug/L
EPA 8260C	Groundwater	cis-1,3-Dichloropropene	0.5	0.144	ug/L
EPA 8260C	Groundwater	Cyclohexane	10	0.271	ug/L
EPA 8260C	Groundwater	Dibromochloromethane	0.5	0.149	ug/L
EPA 8260C	Groundwater	Dibromomethane	5	0.363	ug/L
EPA 8260C	Groundwater	Dichlorodifluoromethane	5	0.245	ug/L
EPA 8260C	Groundwater	Ethyl ether	2.5	0.15	ug/L
EPA 8260C	Groundwater	Ethylbenzene	0.5	0.168	ug/L
EPA 8260C	Groundwater	Hexachlorobutadiene	0.5	0.217	ug/L
EPA 8260C	Groundwater	Isopropylbenzene	0.5	0.187	ug/L
EPA 8260C	Groundwater	Methyl Acetate	10	0.234	ug/L
EPA 8260C	Groundwater	Methyl cyclohexane	10	0.396	ug/L
EPA 8260C	Groundwater	Methyl tert butyl ether	1	0.16	ug/L
EPA 8260C	Groundwater	Methylene chloride	3	0.289	ug/L
EPA 8260C	Groundwater	Naphthalene	2.5	0.216	ug/L
EPA 8260C	Groundwater	n-Butylbenzene	0.5	0.192	ug/L
EPA 8260C	Groundwater	n-Propylbenzene	0.5	0.173	ug/L
EPA 8260C	Groundwater	o-Chlorotoluene	2.5	0.17	ug/L
EPA 8260C	Groundwater	o-Xylene	1	0.33	ug/L
EPA 8260C	Groundwater	p/m-Xylene	1	0.332	ug/L
EPA 8260C	Groundwater	p-Chlorotoluene	2.5	0.185	ug/L
EPA 8260C	Groundwater	p-Isopropyltoluene	0.5	0.188	ug/L
EPA 8260C	Groundwater	sec-Butylbenzene	0.5	0.181	ug/L
EPA 8260C	Groundwater	Styrene	1	0.359	ug/L
EPA 8260C	Groundwater	tert-Butyl Alcohol	10	0.899	ug/L
EPA 8260C	Groundwater	tert-Butylbenzene	2.5	0.185	ug/L
EPA 8260C	Groundwater	Tetrachloroethene	0.5	0.181	ug/L
EPA 8260C	Groundwater	Toluene	0.75	0.161	ug/L
EPA 8260C	Groundwater	trans-1,2-Dichloroethene	0.75	0.163	ug/L
EPA 8260C	Groundwater	trans-1,3-Dichloropropene	0.5	0.164	ug/L
EPA 8260C	Groundwater	trans-1,4-Dichloro-2-butene	2.5	0.173	ug/L
EPA 8260C	Groundwater	Trichloroethene	0.5	0.175	ug/L
EPA 8260C	Groundwater	Trichlorofluoromethane	2.5	0.161	ug/L
EPA 8260C	Groundwater	Vinyl acetate	5	0.311	ug/L
EPA 8260C	Groundwater	Vinyl chloride	1	0.0699	ug/L
EPA 8260C	Groundwater	Xylenes, Total	1	0.33	ug/L

ATTACHMENT B

GROUNDWATER SAMPLES
LABORATORY REPORTING LIMITS AND METHOD DETECTION LIMITS

Method	Matrix	Analyte	RL	MDL	Units
Semivolatile Organic Compounds					
EPA 8270D	Groundwater	1,2,4,5-Tetrachlorobenzene	10	0.357	ug/L
EPA 8270D	Groundwater	1,2,4-Trichlorobenzene	5	0.21	ug/L
EPA 8270D	Groundwater	1,2-Dichlorobenzene	2	0.302	ug/L
EPA 8270D	Groundwater	1,3-Dichlorobenzene	2	0.35	ug/L
EPA 8270D	Groundwater	1,4-Dichlorobenzene	2	0.323	ug/L
EPA 8270D	Groundwater	2,3,4,6-Tetrachlorophenol	5	0.59	ug/L
EPA 8270D	Groundwater	2,4,5-Trichlorophenol	5	0.748	ug/L
EPA 8270D	Groundwater	2,4,6-Trichlorophenol	5	0.775	ug/L
EPA 8270D	Groundwater	2,4-Dichlorophenol	5	0.564	ug/L
EPA 8270D	Groundwater	2,4-Dimethylphenol	5	0.578	ug/L
EPA 8270D	Groundwater	2,4-Dinitrophenol	20	1.4081	ug/L
EPA 8270D	Groundwater	2,4-Dinitrotoluene	5	1.05	ug/L
EPA 8270D	Groundwater	2,6-Dinitrotoluene	5	0.89	ug/L
EPA 8270 SIM Isotope Dilution	Groundwater	1,4-Dioxane	0.35	0.075	ug/L
EPA 8270D	Groundwater	2-Chloronaphthalene	2	0.455	ug/L
EPA 8270D	Groundwater	2-Chlorophenol	2	0.58	ug/L
EPA 8270D	Groundwater	2-Methylnaphthalene	2	0.355	ug/L
EPA 8270D	Groundwater	2-Methylphenol	5	0.703	ug/L
EPA 8270D	Groundwater	2-Nitroaniline	5	0.956	ug/L
EPA 8270D	Groundwater	2-Nitrophenol	10	1.05	ug/L
EPA 8270D	Groundwater	3,3'-Dichlorobenzidine	5	0.478	ug/L
EPA 8270D	Groundwater	3-Methylphenol/4-Methylphenol	5	0.72	ug/L
EPA 8270D	Groundwater	3-Nitroaniline	5	0.668	ug/L
EPA 8270D	Groundwater	4,6-Dinitro-o-cresol	10	1.36	ug/L
EPA 8270D	Groundwater	4-Bromophenyl phenyl ether	2	0.428	ug/L
EPA 8270D	Groundwater	4-Chloroaniline	5	0.835	ug/L
EPA 8270D	Groundwater	4-Chlorophenyl phenyl ether	2	0.355	ug/L
EPA 8270D	Groundwater	4-Nitroaniline	5	0.83	ug/L
EPA 8270D	Groundwater	4-Nitrophenol	10	1.09	ug/L
EPA 8270D	Groundwater	Acenaphthene	2	0.284	ug/L
EPA 8270D	Groundwater	Acenaphthylene	2	0.372	ug/L
EPA 8270D	Groundwater	Acetophenone	5	0.428	ug/L
EPA 8270D	Groundwater	Anthracene	2	0.2	ug/L
EPA 8270D	Groundwater	Atrazine	10	0.794	ug/L
EPA 8270D	Groundwater	Azobenzene	2	0.537	ug/L
EPA 8270D	Groundwater	Benzaldehyde	5	0.986	ug/L
EPA 8270D	Groundwater	Benzidine	20	5.24	ug/L
EPA 8270D	Groundwater	Benzolanthracene	2	0.323	ug/L
EPA 8270D	Groundwater	Benzolapyrene	2	0.658	ug/L
EPA 8270D	Groundwater	Benzofluoranthene	2	0.371	ug/L
EPA 8270D	Groundwater	Benzoghiperylene	2	0.574	ug/L
EPA 8270D	Groundwater	Benzokifluoranthene	2	0.3	ug/L
EPA 8270D	Groundwater	Benzoic Acid	50	1.0104	ug/L
EPA 8270D	Groundwater	Benzyl Alcohol	2	0.677	ug/L
EPA 8270D	Groundwater	Biphenyl	2	0.237	ug/L
EPA 8270D	Groundwater	Bis(2-chloroethoxy)methane	5	0.596	ug/L
EPA 8270D	Groundwater	Bis(2-chloroethoxy)ether	2	0.409	ug/L
EPA 8270D	Groundwater	Bis(2-chloroisopropyl)ether	2	0.597	ug/L
EPA 8270D	Groundwater	Bis(2-Ethylhexyl)phthalate	3	0.928	ug/L
EPA 8270D	Groundwater	Butyl benzyl phthalate	5	1.13	ug/L
EPA 8270D	Groundwater	Caprolactam	10	0.3895	ug/L
EPA 8270D	Groundwater	Carbazole	2	0.374	ug/L
EPA 8270D	Groundwater	Chrysene	2	0.304	ug/L
EPA 8270D	Groundwater	Dibenzofluoranthene	2	0.438	ug/L
EPA 8270D	Groundwater	Dibenzofuran	2	0.218	ug/L
EPA 8270D	Groundwater	Diethyl phthalate	5	0.393	ug/L
EPA 8270D	Groundwater	Dimethyl phthalate	5	0.333	ug/L
EPA 8270D	Groundwater	Di-n-butylphthalate	5	0.768	ug/L
EPA 8270D	Groundwater	Di-n-octylphthalate	5	1.2	ug/L
EPA 8270D	Groundwater	Fluoranthene	2	0.401	ug/L
EPA 8270D	Groundwater	Fluorene	2	0.32	ug/L
EPA 8270D	Groundwater	Hexachlorobenzene	2	0.396	ug/L
EPA 8270D	Groundwater	Hexachlorobutadiene	2	0.417	ug/L
EPA 8270D	Groundwater	Hexachlorocyclopentadiene	20	0.585	ug/L
EPA 8270D	Groundwater	Hexachloroethane	2	0.298	ug/L
EPA 8270D	Groundwater	Indenol(1,2,3-cd)Pyrene	2	0.433	ug/L
EPA 8270D	Groundwater	Isophorone	5	0.787	ug/L
EPA 8270D	Groundwater	Naphthalene	2	0.332	ug/L
EPA 8270D	Groundwater	Nitrobenzene	2	0.401	ug/L
EPA 8270D	Groundwater	NitrosoDiPhenylAmine(NDPA/DPA)	2	0.34	ug/L
EPA 8270D	Groundwater	n-Nitrosodimethylamine	2	0.498	ug/L
EPA 8270D	Groundwater	n-Nitrosodi-n-propylamine	5	0.645	ug/L
EPA 8270D	Groundwater	p-Chloro-m-Cresol	2	0.543	ug/L
EPA 8270D	Groundwater	Pentachlorophenol	10	3.22	ug/L
EPA 8270D	Groundwater	Phenanthrene	2	0.23	ug/L
EPA 8270D	Groundwater	Phenol	5	0.27	ug/L
EPA 8270D	Groundwater	Pyrene	2	0.524	ug/L
EPA 8270D-SIM	Groundwater	2-Chloronaphthalene	0.2	0.035	ug/L
EPA 8270D-SIM	Groundwater	2-Methylnaphthalene	0.2	0.045	ug/L
EPA 8270D-SIM	Groundwater	Acenaphthene	0.2	0.035	ug/L
EPA 8270D-SIM	Groundwater	Acenaphthylene	0.2	0.035	ug/L
EPA 8270D-SIM	Groundwater	Anthracene	0.2	0.035	ug/L
EPA 8270D-SIM	Groundwater	Benzolanthracene	0.2	0.016	ug/L
EPA 8270D-SIM	Groundwater	Benzolapyrene	0.2	0.039	ug/L
EPA 8270D-SIM	Groundwater	Benzofluoranthene	0.2	0.016	ug/L
EPA 8270D-SIM	Groundwater	Benzoghiperylene	0.2	0.042	ug/L
EPA 8270D-SIM	Groundwater	Benzokifluoranthene	0.2	0.042	ug/L
EPA 8270D-SIM	Groundwater	Chrysene	0.2	0.038	ug/L
EPA 8270D-SIM	Groundwater	Dibenzofluoranthene	0.2	0.039	ug/L
EPA 8270D-SIM	Groundwater	Fluoranthene	0.2	0.038	ug/L
EPA 8270D-SIM	Groundwater	Fluorene	0.2	0.037	ug/L
EPA 8270D-SIM	Groundwater	Hexachlorobenzene	0.8	0.032	ug/L
EPA 8270D-SIM	Groundwater	Hexachlorobutadiene	0.5	0.036	ug/L
EPA 8270D-SIM	Groundwater	Hexachloroethane	0.8	0.03	ug/L
EPA 8270D-SIM	Groundwater	Indenol(1,2,3-cd)Pyrene	0.2	0.04	ug/L
EPA 8270D-SIM	Groundwater	Naphthalene	0.2	0.043	ug/L
EPA 8270D-SIM	Groundwater	Pentachlorophenol	0.8	0.22	ug/L
EPA 8270D-SIM	Groundwater	Phenanthrene	0.2	0.015	ug/L
EPA 8270D-SIM	Groundwater	Pyrene	0.2	0.04	ug/L

ATTACHMENT B

GROUNDWATER SAMPLES
LABORATORY REPORTING LIMITS AND METHOD DETECTION LIMITS

Method	Matrix	Analyte	RL	MDL	Units
Pesticides					
EPA 8081B	Groundwater	4,4'-DDD	0.04	0.00464	ug/L
EPA 8081B	Groundwater	4,4'-DDE	0.04	0.00381	ug/L
EPA 8081B	Groundwater	4,4'-DDT	0.04	0.00432	ug/L
EPA 8081B	Groundwater	Aldrin	0.02	0.00216	ug/L
EPA 8081B	Groundwater	Alpha-BHC	0.02	0.00439	ug/L
EPA 8081B	Groundwater	Beta-BHC	0.02	0.0056	ug/L
EPA 8081B	Groundwater	Chlordane	0.2	0.0463	ug/L
EPA 8081B	Groundwater	cis-Chlordane	0.02	0.00666	ug/L
EPA 8081B	Groundwater	Delta-BHC	0.02	0.00467	ug/L
EPA 8081B	Groundwater	Dieldrin	0.04	0.00429	ug/L
EPA 8081B	Groundwater	Endosulfan I	0.02	0.00345	ug/L
EPA 8081B	Groundwater	Endosulfan II	0.04	0.00519	ug/L
EPA 8081B	Groundwater	Endosulfan sulfate	0.04	0.00481	ug/L
EPA 8081B	Groundwater	Endrin	0.04	0.00429	ug/L
EPA 8081B	Groundwater	Endrin aldehyde	0.04	0.0081	ug/L
EPA 8081B	Groundwater	Endrin ketone	0.04	0.00477	ug/L
EPA 8081B	Groundwater	Heptachlor	0.02	0.0031	ug/L
EPA 8081B	Groundwater	Heptachlor epoxide	0.02	0.00415	ug/L
EPA 8081B	Groundwater	Lindane	0.02	0.00434	ug/L
EPA 8081B	Groundwater	Methoxychlor	0.2	0.00684	ug/L
EPA 8081B	Groundwater	Toxaphene	0.2	0.0627	ug/L
EPA 8081B	Groundwater	trans-Chlordane	0.02	0.00627	ug/L
Polychlorinated Biphenyls					
EPA 8082A	Groundwater	Aroclor 1016	0.083	0.05478	ug/L
EPA 8082A	Groundwater	Aroclor 1221	0.083	0.05312	ug/L
EPA 8082A	Groundwater	Aroclor 1232	0.083	0.03071	ug/L
EPA 8082A	Groundwater	Aroclor 1242	0.083	0.05976	ug/L
EPA 8082A	Groundwater	Aroclor 1248	0.083	0.05063	ug/L
EPA 8082A	Groundwater	Aroclor 1254	0.083	0.03403	ug/L
EPA 8082A	Groundwater	Aroclor 1260	0.083	0.03154	ug/L
EPA 8082A	Groundwater	Aroclor 1262	0.083	0.02905	ug/L
EPA 8082A	Groundwater	Aroclor 1268	0.083	0.03735	ug/L
EPA 8082A	Groundwater	PCBs, Total	0.083	0.02905	ug/L
Herbicides					
EPA 8151A	Groundwater	2,4,5-T	2	0.531	ug/L
EPA 8151A	Groundwater	2,4,5-TP (Silvex)	2	0.539	ug/L
EPA 8151A	Groundwater	2,4-D	10	0.498	ug/L
Metals					
EPA 6010A	Groundwater	Aluminum, Dissolved	0.01	0.00169	mg/L
EPA 6010A	Groundwater	Aluminum, Total	0.01	0.00169	mg/L
EPA 6010A	Groundwater	Antimony, Dissolved	0.0005	0.0000699	mg/L
EPA 6010A	Groundwater	Antimony, Total	0.0005	0.0000699	mg/L
EPA 6010A	Groundwater	Arsenic, Dissolved	0.0005	0.000123	mg/L
EPA 6010A	Groundwater	Arsenic, Total	0.0005	0.000123	mg/L
EPA 6010A	Groundwater	Barium, Dissolved	0.0005	0.0000625	mg/L
EPA 6010A	Groundwater	Barium, Total	0.0005	0.0000625	mg/L
EPA 6010A	Groundwater	Beryllium, Dissolved	0.0005	0.00015	mg/L
EPA 6010A	Groundwater	Beryllium, Total	0.0005	0.00015	mg/L
EPA 6010A	Groundwater	Cadmium, Dissolved	0.0002	0.00005	mg/L
EPA 6010A	Groundwater	Cadmium, Total	0.0002	0.00005	mg/L
EPA 6010A	Groundwater	Calcium, Dissolved	0.1	0.032	mg/L
EPA 6010A	Groundwater	Calcium, Total	0.1	0.032	mg/L
EPA 6010A	Groundwater	Chromium, Dissolved	0.001	0.000253	mg/L
EPA 6010A	Groundwater	Chromium, Total	0.001	0.000253	mg/L
EPA 7196A	Groundwater	Chromium, Hexavalent, Dissolved	0.01	0.003	mg/L
EPA 7196A	Groundwater	Chromium, Hexavalent, Total	0.01	0.003	mg/L
EPA 6010A	Groundwater	Cobalt, Dissolved	0.0002	0.0000621	mg/L
EPA 6010A	Groundwater	Cobalt, Total	0.0002	0.0000621	mg/L
EPA 6010A	Groundwater	Copper, Dissolved	0.001	0.000262	mg/L
EPA 6010A	Groundwater	Copper, Total	0.001	0.000262	mg/L
EPA 6010A	Groundwater	Iron, Dissolved	0.05	0.012	mg/L
EPA 6010A	Groundwater	Iron, Total	0.05	0.012	mg/L
EPA 6010A	Groundwater	Lead, Dissolved	0.001	0.000129	mg/L
EPA 6010A	Groundwater	Lead, Total	0.001	0.000129	mg/L
EPA 6010A	Groundwater	Magnesium, Dissolved	0.07	0.0223	mg/L
EPA 6010A	Groundwater	Magnesium, Total	0.07	0.0223	mg/L
EPA 6010A	Groundwater	Manganese, Dissolved	0.001	0.000302	mg/L
EPA 6010A	Groundwater	Manganese, Total	0.001	0.000302	mg/L
EPA 7470A	Groundwater	Mercury, Dissolved	0.0002	0.000066	mg/L
EPA 7470A	Groundwater	Mercury, Total	0.0002	0.000066	mg/L
EPA 6010A	Groundwater	Nickel, Dissolved	0.0005	0.0000865	mg/L
EPA 6010A	Groundwater	Nickel, Total	0.0005	0.0000865	mg/L
EPA 6010A	Groundwater	Potassium, Dissolved	0.1	0.0193	mg/L
EPA 6010A	Groundwater	Potassium, Total	0.1	0.0193	mg/L
EPA 6010A	Groundwater	Selenium, Dissolved	0.005	0.001	mg/L
EPA 6010A	Groundwater	Selenium, Total	0.005	0.001	mg/L
EPA 6010A	Groundwater	Silver, Dissolved	0.00025	0.0000779	mg/L
EPA 6010A	Groundwater	Silver, Total	0.00025	0.0000779	mg/L
EPA 6010A	Groundwater	Sodium, Dissolved	0.1	0.0161	mg/L
EPA 6010A	Groundwater	Sodium, Total	0.1	0.0161	mg/L
EPA 6010A	Groundwater	Thallium, Dissolved	0.0002	0.0000566	mg/L
EPA 6010A	Groundwater	Thallium, Total	0.0002	0.0000566	mg/L
EPA 6010A	Groundwater	Vanadium, Dissolved	0.005	0.000551	mg/L
EPA 6010A	Groundwater	Vanadium, Total	0.005	0.000551	mg/L
EPA 6010A	Groundwater	Zinc, Dissolved	0.01	0.00256	mg/L
EPA 6010A	Groundwater	Zinc, Total	0.01	0.00256	mg/L

ATTACHMENT B

GROUNDWATER SAMPLES
LABORATORY REPORTING LIMITS AND METHOD DETECTION LIMITS

Method	Matrix	Analyte	RL	MDL	Units
PFAS Compounds					
EPA 537 Rev 1.15	Groundwater	Perfluorohexanoic acid (PFHxA)	2	0.1264	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluoroheptanoic acid (PFHpA)	2	0.0924	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluorooctanoic acid (PFOA)	2	0.0504	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluorononanoic acid (PFNA)	2	0.1008	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluorodecanoic acid (PFDA)	2	0.1904	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluoroundecanoic acid (PFUdA)	2	0.1912	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluorododecanoic acid (PFDoA)	2	0.0916	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluorotridecanoic Acid (PFTriDA)	2	0.0904	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluorotetradecanoic acid (PFTA)	2	0.072	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluorobutanesulfonic acid (PFBS)	2	0.11	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluorohexanesulfonic acid (PFHxS)	2	0.1076	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluorooctanesulfonic acid (PFOS)	2	0.1116	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluorodecanesulfonic Acid (PFDS)	2	0.2224	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluorobutanoic Acid (PFBA)	2	0.1312	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluoropentanoic Acid (PFPeA)	2	0.0856	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluoroheptane Sulfonic Acid (PFHpS)	2	0.1552	ng/L
EPA 537 Rev 1.15	Groundwater	1H,1H,2H,2H-Perfluorooctane Sulfonate (6:2 FTS)	2	0.194	ng/L
EPA 537 Rev 1.15	Groundwater	1H,1H,2H,2H-Perfluorodecanesulfonic Acid (8:2 FTS)	2	0.2908	ng/L
EPA 537 Rev 1.15	Groundwater	Perfluorooctanesulfonamide (FOSA)	2	0.2268	ng/L
EPA 537 Rev 1.15	Groundwater	N-methyl perfluorooctanesulfonamidoacetic acid (MeFOSAA)	2	0.2504	ng/L
EPA 537 Rev 1.15	Groundwater	N-ethyl perfluorooctanesulfonamidoacetic acid (EtFOSAA)	2	0.3728	ng/L

APPENDIX B

AIR SAMPLES
LABORATORY REPORTING LIMITS AND METHOD DETECTION LIMITS

Method	Matrix	Analyte	RL	MDL	Units	RL	MDL	Units
Volatile Organic Compounds								
EPA TO-15	Air	1,1,1,2-Tetrachloroethane	1.37	0.38	ug/m ³	0.2	0.0547	ppbV
EPA TO-15	Air	1,1,1-Trichloroethane	1.09	0.31	ug/m ³	0.2	0.057	ppbV
EPA TO-15	Air	1,1,2,2-Tetrachloroethane	1.37	0.38	ug/m ³	0.2	0.0548	ppbV
EPA TO-15	Air	1,1,2-Trichloro-1,2,2-Trifluoroethane	1.53	0.39	ug/m ³	0.2	0.0511	ppbV
EPA TO-15	Air	1,1,2-Trichloroethane	1.09	0.36	ug/m ³	0.2	0.0667	ppbV
EPA TO-15	Air	1,1-Dichloroethane	0.81	0.31	ug/m ³	0.2	0.0771	ppbV
EPA TO-15	Air	1,1-Dichloroethene	0.79	0.22	ug/m ³	0.2	0.0566	ppbV
EPA TO-15	Air	1,1-Dichloropropene	0.91	0.32	ug/m ³	0.2	0.0715	ppbV
EPA TO-15	Air	1,2,3-Trichlorobenzene	1.48	0.32	ug/m ³	0.2	0.0436	ppbV
EPA TO-15	Air	1,2,3-Trichloropropane	1.21	0.46	ug/m ³	0.2	0.0767	ppbV
EPA TO-15	Air	1,2,3-Trimethylbenzene	0.98	0.37	ug/m ³	0.2	0.0751	ppbV
EPA TO-15	Air	1,2,4,5-Tetramethylbenzene	1.1	0.44	ug/m ³	0.2	0.0795	ppbV
EPA TO-15	Air	1,2,4-Trichlorobenzene	1.48	0.45	ug/m ³	0.2	0.0611	ppbV
EPA TO-15	Air	1,2,4-Trimethylbenzene	0.98	0.34	ug/m ³	0.2	0.0694	ppbV
EPA TO-15	Air	1,2-Dibromo-3-chloropropane	1.93	0.72	ug/m ³	0.2	0.0744	ppbV
EPA TO-15	Air	1,2-Dibromoethane	1.54	0.6	ug/m ³	0.2	0.0779	ppbV
EPA TO-15	Air	1,2-Dichloro-1,1,2,2-tetrafluoroethane	1.4	0.29	ug/m ³	0.2	0.0419	ppbV
EPA TO-15	Air	1,2-Dichlorobenzene	1.2	0.37	ug/m ³	0.2	0.0614	ppbV
EPA TO-15	Air	1,2-Dichloroethane	0.81	0.22	ug/m ³	0.2	0.0552	ppbV
EPA TO-15	Air	1,2-Dichloroethene (total)	0.79	0.23	ug/m ³	0.2	0.0587	ppbV
EPA TO-15	Air	1,2-Dichloropropane	0.92	0.32	ug/m ³	0.2	0.0697	ppbV
EPA TO-15	Air	1,3,5-Trimethylbenzene	0.98	0.29	ug/m ³	0.2	0.0584	ppbV
EPA TO-15	Air	1,3-Butadiene	0.44	0.18	ug/m ³	0.2	0.0799	ppbV
EPA TO-15	Air	1,3-Dichlorobenzene	1.2	0.38	ug/m ³	0.2	0.0637	ppbV
EPA TO-15	Air	1,3-Dichloropropane	0.92	0.36	ug/m ³	0.2	0.0776	ppbV
EPA TO-15	Air	1,3-Dichloropropene, Total	0.91	0.31	ug/m ³	0.2	0.0693	ppbV
EPA TO-15	Air	1,4-Dichlorobenzene	1.2	0.25	ug/m ³	0.2	0.0418	ppbV
EPA TO-15	Air	1,4-Dioxane	0.72	0.28	ug/m ³	0.2	0.078	ppbV
EPA TO-15	Air	1-Methylnaphthalene	5.82	1.66	ug/m ³	1	0.286	ppbV
EPA TO-15	Air	2,2,4-Trimethylpentane	0.93	0.31	ug/m ³	0.2	0.0659	ppbV
EPA TO-15	Air	2,2-Dichloropropane	0.92	0.27	ug/m ³	0.2	0.0581	ppbV
EPA TO-15	Air	2-Butanone	1.47	0.15	ug/m ³	0.5	0.0522	ppbV
EPA TO-15	Air	2-Ethylthiophene	0.92	0.26	ug/m ³	0.2	0.0571	ppbV
EPA TO-15	Air	2-Hexanone	0.82	0.25	ug/m ³	0.2	0.0604	ppbV
EPA TO-15	Air	2-Methylnaphthalene	5.82	0.16	ug/m ³	1	0.0273	ppbV
EPA TO-15	Air	2-Methylthiophene	0.8	0.32	ug/m ³	0.2	0.0789	ppbV
EPA TO-15	Air	3-Chloropropene	0.63	0.25	ug/m ³	0.2	0.0812	ppbV
EPA TO-15	Air	3-Methylthiophene	0.8	0.27	ug/m ³	0.2	0.0669	ppbV
EPA TO-15	Air	4-Ethyltoluene	0.98	0.38	ug/m ³	0.2	0.0776	ppbV
EPA TO-15	Air	4-Methyl-2-pentanone	2.05	0.25	ug/m ³	0.5	0.0607	ppbV
EPA TO-15	Air	Acetaldehyde	4.5	0.99	ug/m ³	2.5	0.547	ppbV
EPA TO-15	Air	Acetone	2.38	0.64	ug/m ³	1	0.269	ppbV
EPA TO-15	Air	Acetonitrile	0.34	0.13	ug/m ³	0.2	0.0761	ppbV
EPA TO-15	Air	Acrolein	1.15	0.26	ug/m ³	0.5	0.114	ppbV
EPA TO-15	Air	Acrylonitrile	1.09	0.17	ug/m ³	0.5	0.079	ppbV
EPA TO-15	Air	Benzene	0.64	0.17	ug/m ³	0.2	0.0537	ppbV
EPA TO-15	Air	Benzothiophene	2.74	0.26	ug/m ³	0.5	0.0468	ppbV
EPA TO-15	Air	Benzyl chloride	1.04	0.33	ug/m ³	0.2	0.0645	ppbV
EPA TO-15	Air	Bromobenzene	0.79	0.31	ug/m ³	0.2	0.079	ppbV
EPA TO-15	Air	Bromodichloromethane	1.34	0.44	ug/m ³	0.2	0.0656	ppbV
EPA TO-15	Air	Bromoform	2.07	0.54	ug/m ³	0.2	0.0523	ppbV
EPA TO-15	Air	Bromomethane	0.78	0.27	ug/m ³	0.2	0.0696	ppbV
EPA TO-15	Air	Butane	0.48	0.11	ug/m ³	0.2	0.0442	ppbV
EPA TO-15	Air	Butyl Acetate	2.38	0.54	ug/m ³	0.5	0.114	ppbV
EPA TO-15	Air	Carbon disulfide	0.62	0.11	ug/m ³	0.2	0.0345	ppbV
EPA TO-15	Air	Carbon tetrachloride	1.26	0.3	ug/m ³	0.2	0.0471	ppbV
EPA TO-15	Air	Chlorobenzene	0.92	0.36	ug/m ³	0.2	0.0789	ppbV
EPA TO-15	Air	Chlorodifluoromethane	0.71	0.22	ug/m ³	0.2	0.0626	ppbV

APPENDIX B

AIR SAMPLES
LABORATORY REPORTING LIMITS AND METHOD DETECTION LIMITS

Method	Matrix	Analyte	RL	MDL	Units	RL	MDL	Units
EPA TO-15	Air	Chloroethane	0.53	0.2	ug/m ³	0.2	0.0767	ppbV
EPA TO-15	Air	Chloroform	0.98	0.22	ug/m ³	0.2	0.0452	ppbV
EPA TO-15	Air	Chloromethane	0.41	0.2	ug/m ³	0.2	0.0958	ppbV
EPA TO-15	Air	cis-1,2-Dichloroethene	0.79	0.23	ug/m ³	0.2	0.0587	ppbV
EPA TO-15	Air	cis-1,3-Dichloropropene	0.91	0.34	ug/m ³	0.2	0.0745	ppbV
EPA TO-15	Air	Cyclohexane	0.69	0.23	ug/m ³	0.2	0.0656	ppbV
EPA TO-15	Air	Decane (C10)	1.16	0.28	ug/m ³	0.2	0.0484	ppbV
EPA TO-15	Air	Dibromochloromethane	1.7	0.64	ug/m ³	0.2	0.0747	ppbV
EPA TO-15	Air	Dibromomethane	1.42	0.34	ug/m ³	0.2	0.0476	ppbV
EPA TO-15	Air	Dichlorodifluoromethane	0.99	0.23	ug/m ³	0.2	0.0466	ppbV
EPA TO-15	Air	Dichlorofluoromethane	0.84	0.24	ug/m ³	0.2	0.0572	ppbV
EPA TO-15	Air	Dodecane (C12)	1.39	0.39	ug/m ³	0.2	0.0564	ppbV
EPA TO-15	Air	Ethyl Acetate	1.8	0.47	ug/m ³	0.5	0.131	ppbV
EPA TO-15	Air	Ethyl Alcohol	4.71	1.02	ug/m ³	2.5	0.542	ppbV
EPA TO-15	Air	Ethyl ether	0.61	0.18	ug/m ³	0.2	0.0591	ppbV
EPA TO-15	Air	Ethylbenzene	0.87	0.24	ug/m ³	0.2	0.0555	ppbV
EPA TO-15	Air	Ethyl-Tert-Butyl-Ether	0.84	0.22	ug/m ³	0.2	0.0515	ppbV
EPA TO-15	Air	Heptane	0.82	0.23	ug/m ³	0.2	0.0553	ppbV
EPA TO-15	Air	Hexachlorobutadiene	2.13	0.78	ug/m ³	0.2	0.0732	ppbV
EPA TO-15	Air	Indane	0.97	0.38	ug/m ³	0.2	0.0795	ppbV
EPA TO-15	Air	Indene	0.95	0.29	ug/m ³	0.2	0.0608	ppbV
EPA TO-16	Air	iso-Propyl Alcohol	1.23	0.28	ug/m ³	0.5	0.114	ppbV
EPA TO-17	Air	Isopropyl Ether	0.84	0.27	ug/m ³	0.2	0.0656	ppbV
EPA TO-18	Air	Isopropylbenzene	0.98	0.21	ug/m ³	0.2	0.043	ppbV
EPA TO-19	Air	Methanol	6.55	0.96	ug/m ³	5	0.736	ppbV
EPA TO-20	Air	Methyl Methacrylate	2.05	0.61	ug/m ³	0.5	0.148	ppbV
EPA TO-21	Air	Methyl tert butyl ether	0.72	0.16	ug/m ³	0.2	0.0452	ppbV
EPA TO-22	Air	Methylene chloride	1.74	0.65	ug/m ³	0.5	0.188	ppbV
EPA TO-23	Air	Naphthalene	1.05	0.23	ug/m ³	0.2	0.0432	ppbV
EPA TO-24	Air	n-Butylbenzene	1.1	0.35	ug/m ³	0.2	0.0639	ppbV
EPA TO-25	Air	n-Heptane	0.82	0.23	ug/m ³	0.2	0.0553	ppbV
EPA TO-26	Air	n-Hexane	0.7	0.18	ug/m ³	0.2	0.0518	ppbV
EPA TO-27	Air	Nonane (C9)	1.05	0.34	ug/m ³	0.2	0.0644	ppbV
EPA TO-28	Air	n-Propylbenzene	0.98	0.27	ug/m ³	0.2	0.0559	ppbV
EPA TO-29	Air	o-Chlorotoluene	1.04	0.25	ug/m ³	0.2	0.0487	ppbV
EPA TO-30	Air	Octane	0.93	0.2	ug/m ³	0.2	0.0421	ppbV
EPA TO-31	Air	o-Xylene	0.87	0.27	ug/m ³	0.2	0.0631	ppbV
EPA TO-32	Air	p/m-Xylene	1.74	0.6	ug/m ³	0.4	0.139	ppbV
EPA TO-33	Air	p-Chlorotoluene	1.04	0.4	ug/m ³	0.2	0.0764	ppbV
EPA TO-34	Air	Pentane	0.59	0.14	ug/m ³	0.2	0.0475	ppbV
EPA TO-35	Air	p-Isopropyltoluene	1.1	0.33	ug/m ³	0.2	0.0608	ppbV
EPA TO-36	Air	Propane	0.9	0.21	ug/m ³	0.5	0.114	ppbV
EPA TO-37	Air	Propylene	0.86	0.16	ug/m ³	0.5	0.0929	ppbV
EPA TO-38	Air	sec-Butylbenzene	1.1	0.4	ug/m ³	0.2	0.0731	ppbV
EPA TO-39	Air	Styrene	0.85	0.34	ug/m ³	0.2	0.0799	ppbV
EPA TO-40	Air	tert-Butyl Alcohol	1.52	0.18	ug/m ³	0.5	0.0599	ppbV
EPA TO-41	Air	tert-Butylbenzene	1.1	0.22	ug/m ³	0.2	0.0402	ppbV
EPA TO-42	Air	Tertiary-Amyl Methyl Ether	0.84	0.33	ug/m ³	0.2	0.0795	ppbV
EPA TO-43	Air	Tetrachloroethene	1.36	0.51	ug/m ³	0.2	0.0758	ppbV
EPA TO-44	Air	Tetrahydrofuran	1.47	0.18	ug/m ³	0.5	0.0622	ppbV
EPA TO-45	Air	Thiophene	0.69	0.18	ug/m ³	0.2	0.0528	ppbV
EPA TO-46	Air	Toluene	0.75	0.24	ug/m ³	0.2	0.0628	ppbV
EPA TO-47	Air	Total HC As Hexane	39.34	0.2	ug/m ³	10	0.0518	ppbV
EPA TO-48	Air	Total VOCs As Toluene	37.69	0.24	ug/m ³	10	0.0628	ppbV
EPA TO-49	Air	trans-1,2-Dichloroethene	0.79	0.29	ug/m ³	0.2	0.074	ppbV
EPA TO-50	Air	trans-1,3-Dichloropropene	0.91	0.31	ug/m ³	0.2	0.0693	ppbV
EPA TO-51	Air	Trichloroethene	1.07	0.38	ug/m ³	0.2	0.071	ppbV
EPA TO-52	Air	Trichlorofluoromethane	1.12	0.23	ug/m ³	0.2	0.0416	ppbV
EPA TO-53	Air	Undecane	1.28	0.34	ug/m ³	0.2	0.0528	ppbV
EPA TO-54	Air	Vinyl acetate	3.52	0.2	ug/m ³	1	0.0567	ppbV
EPA TO-55	Air	Vinyl bromide	0.87	0.31	ug/m ³	0.2	0.0699	ppbV
EPA TO-56	Air	Vinyl chloride	0.51	0.14	ug/m ³	0.2	0.0533	ppbV
EPA TO-57	Air	Xylene (Total)	0.87	0.27	ug/m ³	0.2	0.0631	ppbV

ATTACHMENT C

ANALYTICAL METHODS/QUALITY ASSURANCE SUMMARY TABLE

Matrix Type	Field Parameters	Laboratory Parameters	Analytical Methods	Sample Preservation	Sample Container Volume and Type	Sample Hold Time	Field Duplicate Samples	Equipment Blank Samples	Trip Blank Samples	Ambient Air Samples	MS/MSD Samples
Groundwater	Temperature, Turbidity, pH, ORP, Conductivity	Part 375 + TCL VOCs	EPA 8260C	Cool to 4°C; HCl to pH <2; no headspace	Three 40-mL VOC vials with Teflon®-lined cap	Analyze within 14 days of collection	1 per 20 samples (minimum 1)	1 per 20 samples (minimum 1)	1 per shipment of VOC samples	NA	1 per 20 samples
		1,4-dioxane	8270D SIM isotope dilution	Cool to 4°C	One 1-Liter Amber Glass	7 days to extract, 40 days after extraction to analysis					
		Part 375 + TCL SVOCs	EPA 8270D	Cool to 4°C	Two 1-Liter Amber Glass	7 days to extract, 40 days after extraction to analysis					
		Part 375 + TAL Metals	EPA 6020B, EPA 7470A	Cool to 4°C; HNO ₃	250 ml plastic	6 months, except Mercury 28 days					
		Hexavalent Chromium	EPA 7196A	Cool to 4°C	250 ml plastic	24 hours					
		Cyanide	EPA 9010C/9012B	Cool to 4°C; NaOH plus 0.6g ascorbic acid	250 ml plastic	14 days					
		Part 375 + TCL Herbicides	EPA 8151A	Cool to 4°C	Two 1-Liter Amber Glass	7 days to extract, 40 days after extraction to analysis					
		Part 375 + TCL Pesticides	EPA 8081B	Cool to 4°C	Two 1-Liter Amber Glass for Pesticides/PCB	7 days to extract, 40 days after extraction to analysis					
		PCBs	EPA 8082A	Cool to 4°C		7 days to extract, 40 days after extraction to analysis					
		Per- and polyfluoroalkyl substances (PFAS)	EPA 537(M) Rev 1.1	Cool to 4°C, Trizma	One 8-oz pre-certified PFAS-free plastic container	14 days	1 per 20 samples (minimum 1)	1 per 20 samples (minimum 1)	N/A	N/A	1 per 20 samples (minimum 1)

ATTACHMENT C

ANALYTICAL METHODS/QUALITY ASSURANCE SUMMARY TABLE

Matrix Type	Field Parameters	Laboratory Parameters	Analytical Methods	Sample Preservation	Sample Container Volume and Type	Sample Hold Time	Field Duplicate Samples	Equipment Blank Samples	Trip Blank Samples	Ambient Air Samples	MS/MSD Samples
Soil	Total VOCs via PID	Part 375 + TCL VOCs	EPA 8260C	Cool to 4°C	Two 40-ml VOC vials with 5ml H ₂ O, one with MeOH (separate container for % solids)	48 hours after sampling if samples are not frozen to -7° C, 14 days after extraction to analysis	1 per 20 samples (minimum 1)	1 per 20 samples (minimum 1)	NA	NA	1 per 20 samples
		Part 375 + TCL SVOCs	EPA 8270D	Cool to 4°C	4 oz. amber glass jar	14 days extract, 40 days after extraction to analysis					
		Part 375 + TAL Metals	EPA 6010D, EPA 7471B, EPA 7196A, EPA 9010C/9012B	Cool to 4°C	2 oz. amber glass jar	6 months, except mercury 28 days					
		Part 375 + TCL Pesticides	EPA 8081B	Cool to 4°C	4 oz. amber glass jar	14 days extract, 40 days after extraction to analysis					
		Part 375 + TCL Herbicides	EPA 8151A	Cool to 4°C	4 oz. amber glass jar	14 days extract					
		Part 375 + TCL PCBs	EPA 8082A	Cool to 4°C	4 oz. amber glass jar	14 days extract, 40 days after extraction to analysis					
		Per- and polyfluoroalkyl substances (PFAS)	EPA 537(M) Rev 1.1	Cool to 4°C, Trizma	Two 250 mL high density polyethylene (HDPE) bottles	14 days					
Product	N/A	Petroleum Hydrocarbon Identification (PHI)	EPA 8015D(M)	Cool to 4°C	4 oz. amber glass jar	14 days extract, 40 days after extraction to analysis	N/A	N/A	N/A	N/A	N/A
		Density	ASTM D1475	Cool to 4°C	4 oz. amber glass jar	N/A	N/A	N/A	N/A	N/A	N/A
		Viscosity	ASTM D445	Cool to 4°C	4 oz. amber glass jar	N/A	N/A	N/A	N/A	N/A	N/A
Soil Vapor	Total VOCs and Methane with MultiGas Meter	TO-15 Listed VOCs	TO-15	Ambient Temperature	6-Liter Summa Canister	Analyze within 30 days of collection	1 per 20 samples (minimum 1)	NA	NA	1 per 10 samples (minimum 1)	NA
Ambient Air	Total VOCs via PID	TO-15 Listed VOCs	TO-15	Ambient Temperature	6-Liter Summa Canister	Analyze within 30 days of collection	1 per 20 samples (minimum 1)	NA	NA	1 per 10 samples (minimum 1)	NA

Notes:

1. PID - Photoionization Detector
2. VOC - Volatile organic compound
3. EPA - Environmental Protection Agency
4. TCL - Target compound list
5. TAL - Target analyte list

SOP #01 – Sample Nomenclature

INTRODUCTION

The Langan Environmental Group conducts an assortment of site investigations where samples (Vapor, Solids, and Aqueous) are collected and submitted to analytical laboratories for analysis. The results of which are then evaluated and entered into a data base allowing quick submittal to the state regulatory authority (New York State Division of Environmental Conservation [NYSDEC]). In addition, Langan is linking their data management system to graphic and analytical software to enable efficient evaluation of the data as well as creating client-ready presentational material.

SCOPE AND APPLICATION

This Standard Operating Procedure (SOP) is applicable to the general framework for labeling vapor, solid (soil) and aqueous (groundwater) samples that will be submitted for laboratory analysis. The nomenclature being introduced is designed to meet the NYSDEC EQulS standard and has been incorporated into Langan software scripts to assist project personnel in processing the data. While this SOP is applicable to all site investigation; unanticipated conditions may arise which may require considerable flexibility in complying with this SOP. Therefore, guidance provided in this SOP is presented in terms of general steps and strategies that should be applied; but deviation from this SOP must be reported to the Project Manager (PM) immediately.

GENERAL SAMPLE IDENTIFICATION CONSIDERATIONS

Sample Labels

All sample ware must have a label. Recall that when you are using the Encore™ samples (see below); they are delivered in plastic lined foil bags. You are to label the bags¹:



All other samples containers including Terra Cores™ must be labeled with laboratory provided self-adhesive labels.

Quick Breakdown of Sample Format

The general format for sample nomenclature is:

¹Both Alpha and York laboratories permit the combining of the three Encore™ into a single bag. This may not be appropriate for all laboratories so please confirm with the labs themselves

LLNN_ID

Where

LL is a grouping of two (2) to four (4) letters signifying the sample media source. In older nomenclature SOPs this portion of the sample identification is commonly referred to as the *Sample Investigation Code*

NN represents a two digit number identifying the specific sample location or sample sequence number

_ (underscore) is required between the sample lettering and numeric identification and additional modifying data that determines the date of sampling or the depth of the sample interval

ID is a modifier specific to the sample type media (depth of soil sample or date of groundwater sample)

LL – Sample Investigation Code

Langan has devised a list of two to four letters to insure a quick ability to identify the sample investigation.

Code	Investigation
AA	Ambient Air
DS	Drum
EPB	Endpoint Location - Bottom (Excavation)
EPSW	Endpoint Location - Sidewall (Excavation)
FP	Free Product
IA	Indoor Air
IDW	Investigation Derived Waste (Soil Pile)
MW	Monitoring Well (Permanent)
SB	Soil Boring
SG	Staff Gauge (Stream Gauging)
SL	Sludge
SV	Soil Vapor Point
SVE	Soil Vapor Extraction Well
SW	Surface Water
TMW	Temporary Monitoring Well
TP	Test Pit (Excavated Material from Test Pit Not Associated With Sidewall or Bottom Samples)
WC	Waste Characterization Boring
COMP	Composite Sample
TB	Trip Blank (QA/QC Sampling – All Investigations)
FB	Field Blank (QA/QC Sampling – All Investigations)
DUP	Duplicate (QA/QC Sampling – All Investigations)

NN – Numeric Identifier

The two digit number that follows the sample investigation code (LL) identifies the specific sample based on the soil boring, monitoring well, endpoint or other location identification. For a subset of samples

where there is no specific location identifier, the two digit number is the sequence number for the sample submitted. For example, an aqueous sample from a monitoring well identified as MW-1 would have the sample investigation code of MW and the numeric identifier as 01. Note there is no hyphen. The same can be done for soil borings, a soil sample collected from soil boring 9 (SB-9) would be have the LLNN identification of SB09 (again, no hyphen).

Note however that there is a subset of samples related to laboratory analytical quality assurance, among these includes TB, FB, and DUP. On many investigations, the Scope will require multiple collections of these types of samples, therefore the numerical number represents the sequence sample count where the first sample is 01, the second sample is 02, and the third sample is 03 and so on.

_ Underscore

The underscore is required. It separates the investigation code and numeric identifier from the modifier specific to the sample itself. Note that every effort should be made to insure that the underscore is clear on the sample label and chain of custody (COC).

ID – Modifier Specific to Type Media

Each sample investigation code and numeric identifier is further modified by an ID specific to the sample type media. In general, soil samples (soil borings or endpoint samples) use an ID that indicates the depth at which the sample was taken. Aqueous samples (groundwater or surface water samples) are identified by the date the sample was collected. Other types of samples including quality control (TB, FB, and DUP), Vapor samples (AA, IA, SV or SVE), other soil type samples (IDW, sludge, free product, drum, and others) are also identified by a date. The following rules apply to the ID when using sample depth or sample date.

Sample Depth

The sample depth must be whole numbers (no fractions) separated by a hyphen. Thus for a soil sample collected from the soil boring SB-1 from a depth of 6 feet to 8 feet, the sample would be identified as:

SB01_6-8

Unfortunately, the NYSDEC EQulS system does not accept fractions. Therefore, if your sample interval is a fraction of a foot (6.5-7.5), round up to the larger interval (6-8).

Sample Date

The sample date is always in the format of MMDDYY. Note that the year is two digits. Thus for a groundwater sample collected on July 1, 2015 from the monitoring well MW-1, the sample would be identified as:

MW01_070115

Special Cases

There are a couple of specific sample types that require further explanation.

Endpoint Sampling

End point sidewall samples are sometimes modified by magnetic direction (N, S, E, and W). For example, the first sidewall endpoint sample from the north wall of an excavation at a depth of 5 feet would be written as:

EPSW01_N_5

Again, note that the N in the identification refers to north and is separated from the prefix investigation code/numeric identifier and ID modifier suffix by underscores.

Vapor Extraction Well Sample

As with the sidewall endpoint samples, the sample name is altered by inserting a middle modifier between the prefix and suffix of the sample name. The middle modifier is used to identify the source of the sample (inlet sample port, midpoint sample port or outlet sample port). For example the midpoint port of the vapor extraction well number 1 sampled on July 1, 2015 would be written as;

SVE01_MID_070115

Matrix Spike and Matrix Spike Duplicate

On occasion, a Langan investigation will collect a sample to be used to provide the lab with a site specific medium to spike to determine the quality of the analytical method. This special case of sampling requires additional information to be used in the sample name, specifically, a suffix specifying whether the sample is the matrix spike (MS) or the matrix spike duplicate (MSD). In the following example, the sample is collected from soil boring number 1 at a depth of 2-4 feet. For the matrix spike sample:

SB01_2-4_MS

and for the matrix spike duplicate sample:

SB01_2-4_MSD

Multiple Interval Groundwater Sampling

Although not currently a common practice, low flow sampling facilitates stratigraphic sampling of a monitoring well. If the scope requires stratigraphic sampling then groundwater samples will be labeled with a lower case letter following the well number. For example, placing the pump or sampling tube at 10 feet below surface in MW01 on July 1, 2015 would require the sample to be labeled as:

MW01a_070115

While a second sample where the pump or tubing intake is placed at 20 feet would be labeled as:

MW01b_070115

Note that it is important that you record what depth the intake for each sample represents in your field notes; as this information is going to be critical to interpreting the results.

APPENDIX F

PROJECT PERSONNEL RESUMES

WILLIAM BOHRER, PG

PROJECT GEOLOGIST

GEOLOGIST

Mr. Bohrer is an experienced geologist responsible for managing Langan's environmental standards and Health and Safety compliance for projects throughout New York City. His services include dissemination of environmental protocols, troubleshooting at project sites, in-house/field training, and maintenance of quality standards across the environmental discipline. Mr. Bohrer has a diverse and extensive background in geophysics, hydrogeology, mining and petroleum, and geotechnical engineering. He has developed conceptual site models for public, industrial and commercial facilities nationwide.



SELECTED PROJECTS

- NYU Poly – 122 Johnson Street, Brooklyn, NY
- Con Edison of New York at Governor's Island, NY, NY
- 535 4th Avenue, Brooklyn, NY
- 27 Wooster Street, New York, NY
- 42 West Street, Brooklyn, NY
- 455 West 19th Street, New York, NY
- Kings Plaza Mall, Brooklyn, NY
- Hudson Yards "Terra Firma", New York, NY
- Hudson Yards, Platform Special Inspection, New York, NY
- PSAC II, Bronx, NY
- 595-647 Smith Street, Brooklyn, NY
- New York University, 7-13 Washington Square North Investigation, New York, NY
- NYU 4 Washington Square Village, New York, NY
- 125th Street and Lenox Avenue, New York, NY
- Sullivan Street Development, New York, NY
- Hudson Crossing II, New York, NY
- New York Aquarium, Shark Tank & Animal Care Facility, Brooklyn, NY
- 209-219 Sullivan Street, New York, NY
- 261 Hudson Street, New York, NY
- 460 Washington Street, New York, NY
- 552 West 24th Street, New York, NY
- Brooklyn Bridge Park Pier 1, New York, NY
- International Leadership Bronx Charter School, Bronx, NY
- 203 East 92nd Street, New York, NY
- HighLine 28-29, New York, NY
- 539 Smith Street Bulkhead, Brooklyn, NY
- Willets Point, Corona, NY
- Plume Migration and Fracture Flow Aquifer Investigation, Brunswick, MD
- Plume Migration and Fracture Flow Aquifer Investigation, Fallston, MD
- Emergency Response Site Investigation & Remediation, Wappingers Falls, NY
- Emergency Response Site Investigation & Remediation, Allentown, PA

EDUCATION

Post Graduate Studies in
Geophysics
Cornell University

B.S., Geology
Tufts University

PROFESSIONAL REGISTRATION

Professional Geologist
(PG) in NY

40 Hour OSHA
HazWOPER

OSHA Construction Safety
& Health

OSHA Supervisory
Certification
Credential (TWIC)

Transportation Worker
Identification

NYS DEC- Protecting New
York's Natural Resources
with Better Construction
Site Management

AFFILIATIONS

American Association of
Petroleum Geologists

National Groundwater
Association

Geological Society of
America

LANGAN

WILLIAM BOHRER, PG

- Emergency Response Site Investigation & Remediation, Shamokin, PA
- Bermuda International Airport, Jet Fuel Release Investigation, Bermuda
- Little Missouri River Basin, Geotechnical Site Evaluation (Horizontal Drilling Pipeline Install), ND
- Seismic Susceptibility Evaluation (Class 2 Injection Wells), Litchfield, OH
- Bedrock Mapping, Bradford and Sullivan Counties, PA
- Soil Solidification, Carteret, NJ

PA Council of Professional Geologists

BRIAN GOCHENAUR, QEP

SENIOR PROJECT MANAGER

ENVIRONMENTAL SCIENTIST

Mr. Gochenaur is an environmental project manager whose experience includes environmental due diligence, site investigation and remediation, fuel oil storage tank investigation and removal, soil vapor intrusion assessments, in-situ remedial technology, spill closure, vapor barrier and sub-slab depressurization system design and construction, emergency response, environmental and geotechnical site investigations, and health and safety monitoring. He has extensive experience with the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup, Voluntary Cleanup and Spill Programs and New York City Department of Environmental Protection (NYCDEP) "E" Designated and New York City Voluntary Cleanup Program (BCP) sites. His areas of expertise include Phase I Environmental Site Assessments, Phase II Site Investigations, and environmental consulting and oversight on large scale construction projects.

SELECTED PROJECTS

- 440 Washington Street, E-Designated services, New York, NY
- 3514 Surf Avenue, Tall Residential and Retail Building, Brooklyn, NY
- ARO 242 West 53, Tall Residential Building, New York, NY
- NY Aquarium Shark Exhibit, Soil Characterization and Excavation Oversight, Coney Island Neighborhood, Brooklyn, NY
- 60 West Street, Site Investigation and Redevelopment, Brooklyn, NY
- 535 4th Avenue, BCP Auto Repair Cleanup and Redevelopment, Brooklyn, NY
- 1525 Bedford Avenue, BCP Gas Station Cleanup and Redevelopment, Brooklyn, NY
- 220 Eleventh Avenue, Residential Building, New York, NY
- 432 Rodney Street, Residential Building, Brooklyn, NY
- 563 Sackett Street, Brooklyn, NY
- 362 West 125th Street, Residential Building, New York, NY
- Bedford Armory Redevelopment, Brooklyn, NY
- 268 West Street, BCP Redevelopment of Former Commercial and Industrial Site, New York, NY
- 110 125th Street, Soil Excavation and Remediation, New York, NY
- Former Roseland Ballroom Redevelopment, Soil Characterization and Excavation Oversight, New York, NY
- 42 Crosby Street, "E" Designated Site Investigation and Remediation, New York, NY
- New York School Construction Authority, Various Locations, In-House Environmental Consulting, Five Boroughs of New York City
- EZ Serve Portfolio, GE Capital, Various Phase II Site Investigations, FL, GA, LA, and MS
- Beth Elohim Child Daycare Center, Lead Based Paint Abatement, Brooklyn, NY
- Price Battery, Environmental Protection Agency (EPA) Lead Fallout Superfund Site, Hamburg, PA



EDUCATION

B.S., Environmental
Science
University of Florida

PROFESSIONAL REGISTRATION

Qualified Environmental
Professional (QEP)
certified by the Institute of
Professional
Environmental Practice

40-Hour OSHA
(HAZWOPER)

LANGAN

BRIAN GOCHENAUR, QEP

- Clark Portfolio, GE Capital, Various Phase II Locations, MI, IL, ID, and OH
- Tops Plaza Portfolio, Prudential Real Estate Investors, Various Phase II Locations, NY
- Cingular Wireless Portfolio, Cingular Wireless, Various Locations Phase I and II Locations, WA
- Queens Center Mall Expansion, Remedial Oversight, Elmhurst, NY
- Soka Gakkai International-USA, Cultural Center, Brooklyn, NY

JASON J. HAYES, PE, LEED AP

PRINCIPAL/VICE PRESIDENT

ENVIRONMENTAL ENGINEERING

Mr. Hayes has experience in New York, New Jersey, Washington D.C., California, Washington, Oregon, Alaska, and Internationally. His experience includes Environmental Protection Agency (EPA), New York State (NYS) Brownfields applications, investigation, and remediation; New York City Department of Environmental Protection (NYCDEP) and New York City Office of Environmental Remediation (OER) E-designated site applications, investigations, and remediation. His expertise also includes Phase I and II Environmental Site Investigations and Assessments; contaminated building cleanup and demolition; Underground Storage Tank (UST) permitting, removal specifications, and closure reporting; soil vapor intrusion investigation and mitigation system design (depressurization systems, etc.); development of groundwater contaminant plume migration models; environmental analysis; and oversight, design and specification generation for remediation operations with contaminants of concern to include polychlorinated biphenyls (PCBs), solvents, mercury, arsenic, petroleum products, asbestos, mold and lead.

SELECTED PROJECTS

- Confidential Location (Remediation for Mercury-Contaminated Site), New York, NY
- Confidential Location (Phase II ESI and Remedial Design for Mercury Impacted Site), Brooklyn, NY
- NYC School Construction Authority (PCB Remediation), Various Locations, New York, NY
- 28-29 High Line (Phase I ESA, Phase II ESI, and Environmental Remediation), New York, NY
- Georgetown Heating Plant (Phase II ESI and Remedial Design for Mercury Impacted Site), Washington D.C.
- 268 West Street (BCP Application, RI and RIWP), New York, NY
- Confidential Multiple Mixed-Use Tower Location (BCP Application, RI, Phase I ESA, and Phase II ESI), New York, NY
- Dock 72 at Brooklyn Navy Yard, (NYS Voluntary Cleanup Program), Brooklyn, NY
- 27-21 44th Drive (BCP Application, Remedial Investigation Phase I ESA, and Phase II ESI), Long Island City, NY
- Purves Street Development, BCP Application, RAWP, and Phase II ESI, Long Island City, NY
- 267-273 West 87th Street (BCP Application, Remedial Investigation, RIWP, RAWP), New York, NY
- New York Aquarium, Shark Tank and Animal Care Facility (Environmental Remediation), Coney Island, NY
- International Leadership Charter School (Environmental Remediation), Bronx, NY
- West & Watts (BCP Application), New York, NY
- Hudson Yards Redevelopment (Phase I ESA and Phase II ESI), New York, NY



EDUCATION

M.S., Environmental Engineering
Columbia University

B.S., Chemistry,
Environmental Toxicology
Humboldt State University

Business Administration
(minor) Humboldt State
University

PROFESSIONAL REGISTRATION

Professional Engineer (PE)
in NY

LEED Accredited
Professional (LEED AP)

Troxler Certification for
Nuclear Densometer
Training

CPR and First Aid
Certification

OSHA 40-Hour
HAZWOPER

OSHA HAZWOPER Site
Supervisor

AFFILIATIONS

US Green Building
Council, NYC Chapter
(USGBC),
Communications
Committee

LANGAN

JASON J. HAYES, PE, LEED AP

- 627 Smith Street (RI and Report), Brooklyn, NY
 - Gateway Center II Retail (Phase I ESA and Phase II ESI), Brooklyn, NY
 - 261 Hudson Street (Phase I ESA, Phase II ESI, BCP, and RAWP), New York, NY
 - Riverside Center, Building 2 (BCP, Phase I ESA and Phase II ESI), New York, NY
 - New York Police Academy, (Sub-Slab Depressurization and Vapor Barrier System), College Point, NY
 - Bronx Terminal Market (BCP, RIWP, RAWP, Phase I ESA and Phase II ESI), Bronx, NY
 - Jacob Javits Convention Center (Phase I ESA and Phase II ESI), New York, NY
 - Yankee Stadium Development Waterfront Park (NYSDEC Spill Sites), Bronx, NY
 - Bushwick Inlet Park (Phase I ESA, Approvals for NYC E-Designation), Brooklyn, NY
 - Silvercup West (BCP, RIWP, RIR, RAWP, and RAA), Long Island City, NY
 - 29 Flatbush, Tall Residential Building (Groundwater Studies, RIR and RAWP), Brooklyn, NY
 - Gowanus Village I (BCP, RIWP and RIR), Brooklyn, NY
 - Sullivan Street Hotel (Site Characterization Study and Owner Representation), New York, NY
 - Riker's Island Co-Generation Plant (Soil and Soil Vapor Quality Investigations), Bronx, NY
 - The Shops at Atlas Park (Sub-Slab Depressurization and Vapor Barrier Design), Glendale, NY
 - Memorial Sloan-Kettering Cancer Center (Subsurface and Soil Vapor Intrusion Investigations), New York, NY
 - Element West 59th Street (Oversight and Monitoring of Sub-Slab Depressurization and Vapor Barrier Systems), New York, NY
 - Teterboro Airport (Delineation and Remedial Oversight of Petroleum-Contaminated Soils), Teterboro, NJ
 - Proposed New York JETS Stadium (Phase I ESA), New York, NY
 - Former Con Edison Manufactured Gas Plant Sites (Research Reports), New York, NY
 - 7 World Trade Center (Endpoint Sampling and Final Closure Report), New York, NY
 - Peter Cooper Village, Environmental Subsurface Investigations, New York, NY
- Urban Land Institute (ULI), member
- Commercial Real Estate Development Associations (NAIOP), member
- NYC Brownfield Partnership, member

SELECTED PUBLICATIONS, REPORTS, AND PRESENTATIONS

NYC Mayor's Office of Environmental Remediation – Big Apple Brownfield Workshop – Presented on Soil Vapor Intrusion Remedies (e.g., SSD Systems, Vapor Barriers, Modified HVAC)

New York City Brownfield Partnership – Presented on environmental considerations and complications of the Hudson Yards Development

JASON J. HAYES, PE, LEED AP

Waterfront Development Technical Course – Presented on Impacted
Waterfront Planning Considerations

JULIA LEUNG, PE

PROJECT ENGINEER

ENVIRONMENTAL ENGINEERING & WATER RESOURCES

Ms. Leung is an environmental engineer working in the New York Metro area. Her projects involve the investigation and assessment of environmental systems including physical/chemical processes, water chemistry, environmental system analysis, solid waste and water resources engineering, stormwater design and hydrology.

SELECTED PROJECTS

- Phase I ESA, Various Locations, NYC and Westchester County, NY
- Phase II ESI, 412 East 90th Street, New York, NY
- 420 Kent Avenue, Brooklyn, NY
- West and Watts Development, New York, NY
- 203 East 92nd Street, Mixed-Use Building, New York, NY
- BAM North Tower, Brooklyn, NY
- Phase II ESI, FedEx Distribution Facility (830 Fountain Avenue), Brooklyn, NY
- Waste Classification and Lead Delineation Investigation (261 Hudson Street), New York, NY
- Waste Classification Investigation (41-43 East 22nd Street), New York, NY
- Columbia University, Manhattanville Campus, New York, NY
- Riverside Building 5, New York, NY
- Condominium at 200 East 79th Street, New York, NY
- Mercedes Benz of Manhattan (536 West 41st Street), New York, NY
- Phase II ESI (627 Smith Street), Brooklyn, NY
- 340 Court Street, Brooklyn, NY



EDUCATION

M.E., Environmental Engineering
Cornell University

B.S., Biological Engineering
(Environmental Studies Concentration)
Cornell University

PROFESSIONAL REGISTRATION

Professional Engineer (PE)
in NY

10-Hour OSHA

RYAN MANDERBACH, CHMM

SENIOR ASSOCIATE/VP

ENVIRONMENTAL ENGINEERING & SITE ASSESSMENTS

Mr. Manderbach has experience in New York, New Jersey, Massachusetts, Maine, Rhode Island, New Hampshire, and Connecticut. His recent experience includes New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup, Voluntary Cleanup and Spill Programs, and New York City Office of Environmental Remediation (OER) E-designated site investigation, and remediation. He has managed and performed Phase I and II Environmental Site Assessments; Underground Storage Tank (UST) removals and closures; soil vapor intrusion investigations; and site investigations and remediation. He also has extensive experience with Hazard Ranking System (HRS) evaluations, site assessments, removal actions, and emergency response activities under the EPA Regions I and II Superfund program.



SELECTED PROJECTS

- Brownfield Redevelopment, 520 West 41st Street, New York, NY
- Riverside Parcel 1, 3, 4 and 5, Mixed-Use Development, New York, NY
- Brownfield Redevelopment, 267-273 West 87th Street, New York, NY
- Brownfield Redevelopment, 225 33rd Street, Brooklyn, NY
- River Place Residential, SMP Implementation, New York, NY
- Mixed-Use Educational/Residential Development, New York, NY
- Public Safety Answering Center (PSAC) II, Bronx, NY
- American Copper Buildings (616 First Avenue), New York, NY
- Environmental Assessments at 430 East 92nd Street, New York, NY
- Environmental Assessments at 125th Street and Lenox, New York, NY
- Hotel at 70 Park Avenue, New York, NY
- Environmental Due Diligence at Mixed-Use Development, 85 Jay Street, Brooklyn, NY
- 346 Broadway Due Diligence, New York, NY
- Liberty Brass Site, 38-01 Queens Boulevard, Long Island City, NY
- Environmental Remediation, 42 West Street Residential, Brooklyn, NY
- Brownfield Redevelopment, 335 Bond Street, Brooklyn, NY
- Residences at 540 West 21st Street, New York, NY
- International Leadership Bronx Charter School, Bronx, NY
- President Street Properties, Brooklyn, NY
- Residential Development, 43-30 24th Street, Long Island City, NY
- Mixed-Use Condominium, 505-513 West 43rd Street, New York, NY
- 685 First Avenue, New York, NY
- Columbia University, Manhattanville Development, New York, NY
- The Shops at Atlas Park, Glendale, NY
- 536 West 41st Street, New York, NY
- Shore Parkway, Brooklyn, NY
- 100 West 125th Street, New York, NY

EDUCATION

B.A., Environmental Analysis and Policy
Boston University

PROFESSIONAL REGISTRATION

Certified Hazardous Materials Manager (CHMM)

40 Hour HAZWOPER

AFFILIATIONS

New York Building Congress (NYBC), Young Professionals Committee

American Council of Engineering Companies of New York (ACEC NY) – Emerging Leaders Committee

RYAN MANDERBACH, CHMM

- 11 North Moore Street, New York, NY
- 290 West Street, New York, NY
- City University of New York (CUNY), John Jay College Expansion, New York, NY
- Queens West Development, Long Island City, NY
- United Nations Capital Master Plan, New York, NY
- Former Air Products and Chemicals, Inc. Facility, Middlesex, NJ
- Lower Manhattan Indoor Dust Test and Clean Program, New York, NY
- Former Buckbee-Mears Facility, Cortland, NY
- Old Landfill, Norton, MA
- Boulter Farm Area, Cumberland, RI
- Hollingsworth & Vose Co., Walpole, MA
- Chlor-Alkali Facility (Former), Berlin, NH
- Limerick Mill Complex, Limerick, ME
- Danielson Pike Chlorinated Solvent Sites, Scituate, RI
- Tiogue Lake Sediment Contamination Site, Coventry, RI
- Atlas Copco Sites, Holyoke, MA
- Fisherville Mill, Grafton MA
- Hurricane Katrina Federal Disaster Response, New Orleans, LA
- Hurricane Ike Federal Disaster Response, Pasadena, TX

Emily G. Strake

**Project Chemist/ Risk Assessor
Environmental Engineering**



17 years in the industry ~ 5 years with Langan

Ms. Strake has 17 years of environmental chemistry, risk assessment, auditing, and quality assurance experience. Most recently, she has focused her efforts on human health risk assessment, and has been the primary author or key contributor of risk assessment reports and screening evaluations for projects governed under RCRA, CERCLA, NJDEP, DNREC, SWRCB, DTSC, PADEP, CTDEEP, ODEQ, NYSDEC and MDE. She has experience in site-specific strategy development, which has enabled her to perform assessments to focus areas of investigation and identify risk-based alternatives for reducing remediation costs. Ms. Strake is a member of the Interstate Technology and Regulatory Council Risk Assessment Team responsible for the development and review of organizational risk assessment guidance documents and serves as a National Trainer in risk assessment for the organization.

Ms. Strake has extensive experience in environmental data validation, focused on ensuring laboratory deliverables follow specific guidelines as described by regulatory agencies and the analytical methods employed. In addition, she has experience in EQUS chemical database management. She also has a broad range of environmental field experience and maintains current OSHA HAZWOPER certification. Ms. Strake is experienced in auditing laboratory and field-sampling activities for compliance with Quality Assurance Project Plans (QAPPs), the National Environmental Laboratory Accreditation Conference Standards Quality Systems manual, and applicable USEPA Guidance. Ms. Strake has also audited on-site laboratories in support of groundwater treatment operations and implemented corrective actions. Her responsibilities include writing reports on the value of laboratory work, writing/editing QAPPs for clients and project-specific sites, peer reviewing colleague's work, and mentoring staff within the office. She has also served as the Quality Assurance officer for several long-term projects, responsible for the achievement of all forms of Quality Control/Quality Assurance by onsite personnel relating to sampling, analysis, and data evaluation.

Selected Project Experience

Major League Soccer's San Jose Earthquakes Stadium, Santa Clara, CA
DuPont, Waynesboro, VA
PECO/Exelon, Various Locations
Texas Instruments, San Francisco, CA
Regency, Philadelphia, PA
Veteran's Affairs, Palo Alto, CA
DOW Chemical, Various Locations
Avon, Rye, NY
Golden Gate National Parks Conservancy, San Francisco, CA
Sunoco Refineries, Various Locations
Honeywell, Highland Park, NJ
Delaware City Refinery, DE

Education

MBA
The University of Scranton
B.S., Chemistry
Cedar Crest College

Professional Licenses

Board Certified Environmental
Professional (CEP)

Training

40 hr. OSHA HAZWOPER Training/Nov
2002
8 hr. HAZWOPER Supervisor/June 2004
8 hr. OSHA HAZWOPER Refresher/2013

Affiliations

The Society for Risk Analysis
Interstate Technology and Regulatory
Council

LANGAN

Emily G. Strake

Occidental Chemical, Bakersfield, CA
Florefe Terminal, Pittsburgh, PA
Ryder, Hartford, CT
Rohm and Haas, Philadelphia, PA

APPENDIX G

REMEDIATION SCHEDULE

Remediation Schedule
Gerard Avenue and East 146th Street
Bronx, New York
Langan Project No. 170487001
BCP Site ID: C203111

Item #	Action	2019												2020											
		JUN	JUL	MAR	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC				
1	Design, Investigation, and Permitting	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█				
2	Site Demolition									█	█	█													
3	Remedial Implementation										█	█	█	█	█										
4	Balance of Construction																█	█	█	█	█				
5	FER, SMP and EE																█	█	█	█	█				
6	Certificate of Completion (12/31/20)																				█				

Notes:

- 1. FER - Final Engineering Report
- 2. SMP - Site Management Plan
- 3. EE - Environmental Easement

APPENDIX H

REMEDIAL DESIGN MEMORANDUM

Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C.
21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444

To: Sarah Quandt – NYSDEC

From: Jason Hayes, P.E. - Langan

Info: 445 Gerard LLC
Brian Gochenaur, Ryan Manderbach, Joseph Good - Langan

Date: August 7, 2019

Re: In Situ Treatment Remedial Design Plan
Gerard Avenue and East 146th Street
Bronx, New York
NYSBCP Site Number C203111
Langan Project No.: 170487001

This remedial design plan presents an in situ groundwater treatment strategy to remediate residual petroleum-related volatile organic compound (VOC) and semi-volatile organic compound (SVOC) impacts to soil and groundwater at Gerard Avenue and East 146th Street in the Bronx, New York (the site). The site is improved with a food preparation/food cart storage space (Lot 1), a vacant one-story warehouse and parking lot (Lot 3); a vacant one-story warehouse (Lot 12); and a vacant one-story warehouse with a partial cellar (Lot 20). A site location plan is provided as Figure 1 and site layout map is provided as Figure 2.

This document supplements the Remedial Action Work Plan (RAWP), which describes the implementation of a short-term, in situ soil and groundwater treatment technology (i.e., in situ chemical oxidation [ISCO] via injection points or direct mixing where applicable) in the northern part of the site to reduce petroleum-related VOCs and SVOCs in soil and groundwater.

This technical memorandum is organized as follows:

- Section 1.0 - Site Background
- Section 2.0 - In Situ Remedial Technology Options and Description
- Section 3.0 - Supplemental Investigation
- Section 4.0 - Remedy Selection and Implementation
- Section 5.0 - Monitoring
- Section 6.0 - Certification

Technical Memorandum

In situ Treatment Remedial Design Plan
Gerard Avenue and East 146th Street
Bronx, New York
Langan Project No.: 170487001
August 7, 2019 - Page 2 of 8

1.0 SITE BACKGROUND

The stratigraphy underlying the site is comprised of historic fill below impervious cover (building foundation slab or asphalt-pavement) to depths ranging from about 2.5 to 24 feet below grade surface (bgs). Historic fill generally consists of brown, fine- to medium-grained sand with varying amounts of silt, clay, gravel, brick, coal, coal ash, slag, concrete, asphalt, glass, plastic, metal, ceramic tile, wood ash, and wood. Native soil encountered below historic fill predominantly consists of fine- to medium-grained sand with varying amounts of fine gravel, peat, and silt, and a clay layer varying in thickness between 1 and 7 feet. The clay or silty clay layer was encountered at depths ranging between 13 and 27. Depth to groundwater ranges from about 12.08 to 18.95 feet bgs (about el 2.26 to el 3.12 feet¹). Groundwater generally flows to the west toward the Harlem River. The groundwater contour map from the Remedial Investigation Report (RIR) is provided for reference as Figure 3.

The RIR provides a description of contaminant distribution throughout the site. Soil and groundwater data indicate petroleum impacts in the northern part of the site require remediation. The petroleum plume in groundwater spans about 16,200 square feet. The highest concentrations of petroleum-related VOCs and SVOCs in soil were encountered in samples collected from the northeastern part of the site (indicated by borings SB06, SB13, RB09, RB10, RB13, and RB14). The highest concentrations of petroleum-related VOCs in groundwater were encountered in samples collected from MW06, RMW09, RMW10, RMW11, and RMW14. The extent of the treatment area is presented on Figure 4.

Contaminants of concern (COC) that will be addressed by the in situ groundwater treatment are petroleum-related VOCs, including benzene, toluene, ethylbenzene, xylene (BTEX), and their breakdown products. SVOCs include naphthalene, 3&4 methylphenol, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, diben(a,h)anthracene, and indeno(1,2,3-cd)pyrene. Based on the vertical delineation of the petroleum plume, the target depth for the in situ remedial treatment is from approximately 10 to 20 feet bgs on Lot 3 and 18 to 28 feet bgs on Lot 12.

2.0 IN SITU REMEDIATION TECHNOLOGY OPTIONS AND DESCRIPTION

This section describes the remedial options that were selected to address the petroleum-related VOCs and SVOCs in soil and groundwater. Two remedial technologies, 1) ISCO and 2) oxygen release compound, are discussed in greater detail below.

¹ Groundwater elevations are referenced to the North American Vertical Datum of 1988 (NAVD88).

Technical Memorandum

In situ Treatment Remedial Design Plan
Gerard Avenue and East 146th Street
Bronx, New York
Langan Project No.: 170487001
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2.1 In Situ Chemical Oxidation (PersulfOx®)

ISCO involves application of chemical oxidants (e.g., permanganate, hydrogen peroxide, or persulfate) for rapid degradation of the targeted COCs. During the oxidation reaction, electrons are transferred from the contaminant to the oxidant, which oxidizes the contaminant and reduces the electron acceptor (i.e., oxidant). In turn, the contaminant is degraded or destroyed. Oxidants are selected for use based upon their effectiveness for the contaminants of concern and ease of use.

Persulfate ($S_2O_8^{2-}$) is a strong oxidant capable of destroying organic contaminants. "Activators" (i.e., catalysts), including peroxide, chelated metals, or heat, are used to induce the highly oxidative sulfate radicals ($SO_4\cdot$), thereby destroying the contaminants via a radical reaction. PersulfOx® has a built-in catalyst, which activates the persulfate component, generating free radicals without the need for the addition of a separate activator.

2.2 Oxygen Release Compound (ORC Advanced®)

Oxygen release compounds produce a controlled-release of molecular oxygen for an extended period of time. The ORC Advanced® is a formulation of calcium oxy-hydroxide that produces a controlled-release of molecular oxygen for a period of up to 12 months upon hydration. The application of ORC Advanced® or a similar product to the subsurface can enhance biological activity, which accelerates the rate of naturally-occurring aerobic biodegradation in groundwater.

Product specifications for PersulfOx® and ORC Advanced® are provided in Appendix B.

3.0 SUPPLEMENTAL INVESTIGATION

Langan performed a supplemental investigation in May 2019, which consisted of the collection of additional soil and groundwater samples in the northern part of the site. The purpose of the supplemental investigation was to collect soil and groundwater samples to be analyzed for design parameters and for use in a soil oxidant demand (SOD) test.

3.1 Objectives

The objectives of the SOD test were to:

- 1) Evaluate the feasibility of persulfate oxidation technology to treat petroleum-related VOC and SVOC impacts in saturated soil and groundwater
- 2) Determine full-scale design parameters (i.e., field dosing concentrations)

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3.2 Methodology

The methodology for sample collection, sample preparation, and SOD testing are described below.

Sample Collection and Preparation

Soil and groundwater samples were collected from within the petroleum plume (RB09/RMW09) and from outside of the petroleum plume (RB16/RMW16). A photoionization detector (PID) was used to screen VOC concentrations during sampling. A maximum PID reading of 2,012 parts per million (ppm) was recorded at about 18.5 feet bgs in RB09. About 500 grams of soil were collected from the 18- to 28- foot bgs depth interval at borings RB09 and RB16 for use in the SOD study. About one liter of groundwater was collected from RMW09 and RMW16 for use in the SOD study.

In addition, soil and groundwater samples were collected and analyzed for remediation parameters. Soil samples collected from the 18- to 28- foot bgs depth interval at RB09 and RB16 were analyzed for grain size. A soil sample collected at RB09 from 18 to 20 feet bgs was analyzed for total petroleum hydrocarbons (TPH) diesel range organics (DRO) and gasoline range organics (GRO). Groundwater samples from RMW09 and RMW16 were collected and analyzed for total organic carbon (TOC).

The soil and groundwater SOD study samples were collected in clean disposable bags or glassware, preserved on ice, and delivered to Regenesys Lab of San Clemente, California under standard chain of custody. The soil and groundwater samples to be analyzed for remediation parameters (i.e., TOC, TPH, and/or grain size) were delivered via courier to Alpha Analytical Laboratories Inc. of Mahwah, New Jersey.

The oxidant demand test was set up with 250 grams of site soil and 250 grams of site groundwater. Test samples were prepared with a known amount of sodium persulfate (10 grams of oxidant per kilogram of site soil) and the oxidant concentration was measured in the beginning of the test. After 48 hours, the remaining oxidant concentration was determined.

3.3 Results

The following summarizes the remediation parameter and SOD test results.

Remediation Parameters

Table 1 presents the results of the remediation parameter analyses. Soil and groundwater remediation parameters are used to evaluate the technologies proposed for this site (ISCO and oxygen release compound).

Technical Memorandum

In situ Treatment Remedial Design Plan
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Bronx, New York
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Soil Parameters

- TPH GRO and DRO were detected at 780 milligrams per kilogram (mg/kg) and 911 mg/kg, respectively, in RB09.
- Grain size analysis indicated that petroleum-impacted soil consists of mostly fine sand.

Groundwater Parameters

- TOC was detected at 0.02 milligrams per liter (mg/l) in RMW09 and 0.0043 mg/l in RMW16.

SOD Test Results

The persulfate oxidant demand was determined by the final persulfate consumption at the end of the oxidant demand test. The SOD value was measured at 2.39 grams of oxidant per kilogram of site soil within the petroleum plume at RB09. The SOD value was measured at 2.73 grams of oxidant per kilogram of site soil outside of the petroleum plume at RB16. Laboratory analytical data packages are included as Appendix A.

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4.0 REMEDY SELECTION AND IMPLEMENTATION

An ISCO direct-push oxidant application will be implemented to reduce overall VOC and SVOC concentrations. The about 16,200-square-foot targeted petroleum plume for the oxidant application is presented on Figure 4. One application of oxidant followed by one application of oxidant combined with oxygen release compound are suggested for the treatment area. After total groundwater contaminant concentrations in the petroleum plume are reduced through the first application of PersulfOx[®], a second application of PersulfOx[®] and ORC Advanced[®] will be added a minimum of one week following the first application to reduce potential remaining dissolved-phase contaminants.

4.1 Reagent Selection and Dosage

Treatment Area

The about 16,200-square-foot area will be treated via oxidant and oxygen release compound injections or via direct mixing by the remedial engineer and their subcontractors. Based on contaminant concentration and distribution, a total of about 111,750 pounds of PersulfOx[®] and 17,500 pounds of ORC Advanced[®] will be applied to the treatment area over two applications. The first application will be a 20% solution of PersulfOx[®] and the second application will be a 10% solution of PersulfOx[®] mixed with ORC Advanced[®].

Approximate direct-push injection locations are shown on Figure 4. The contractor will provide all product submittals prior to purchase and implementation. Appendix C includes the Material Safety Data Sheets (MSDS) for these products.

4.2 Field Implementation

Application of the oxidant and oxygen release compound will be via a direct-push drill rig or direct mixing where applicable. The remedial application will target the 10 to 20 foot depth interval on Lot 3 and the 18 to 28 foot depth interval on Lots 12 and 20 where the targeted VOC and SVOC concentrations were observed. Direct push injection locations are detailed on Figure 4. The anticipated radius of influence for the oxidant and oxygen release compound via direct-push is 5 feet. Injection points are located in a rough grid pattern to spread chemicals evenly across the treatment area and will be sequenced in a manner that will minimize off-site migration of contaminant mass. The oxidant will be applied via low-pressure pumps with maximum pressure not to exceed 125 pounds per square inch (psi), which will not significantly alter groundwater elevation. Injections will generally begin up-gradient of the contaminant mass along Gerard Avenue so any marginal increase in groundwater head will maintain groundwater flow direction to the west (i.e., into the site). Following up-gradient injections along Gerard Avenue, the

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In situ Treatment Remedial Design Plan
Gerard Avenue and East 146th Street
Bronx, New York
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sequence will follow with points along East 146th Street and Exterior Street to direct flow toward the center of the source area. After the perimeter injections are complete, injections will converge towards the center of the treatment area. Injection points may be completed one lot after the other to avoid multiple mobilizations.

Flexible hose will be extended from a mixing tank to the injection pump and then to an injection manifold at the drill rig. During the injection, the direct-push rig will advance drill rods to the bottom of the target interval, and then gradually pull the rods upward through the target interval. To avoid mounding at localized areas during the injection, an alternating injection sequence shall be applied, meaning that adjacent injection points should not be injected without lag between the injections. The alternating injections will allow the aquifer to have time to equilibrate with the surroundings. The injection record will include the rate, pressure, and volume at each location.

5.0 MONITORING

Performance monitoring will consist of baseline and post-injection monitoring. The baseline sampling will be conducted prior to injection and post-injection sampling will be conducted quarterly during the two years following the injections.

Real-time monitoring will be performed during the injections at four wells (RMW03, RMW09, RMW10, and RMW14) to monitor for potential contaminant migration. The real-time monitoring will include daily collection of well headspace readings via a photoionization detector (PID), and depth to groundwater measurements.

Post-remediation monitoring for VOCs and SVOCs will be performed at five wells (RMW01, RMW03, RMW09, RMW10, and RMW14) inside of the petroleum plume, as shown on Figure 5. If the wells are destroyed during construction, new temporary wells will be installed. Post-remediation monitoring will start at least 4 weeks after the final application event.

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In situ Treatment Remedial Design Plan
Gerard Avenue and East 146th Street
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6.0 CERTIFICATION

I, Jason Hayes, PE, certify that I am currently a NYS registered professional engineer as defined in 6 NYCRR Part 375 and that this Technical Memorandum was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and that all activities were performed in full accordance with the DER-approved work plan and any DER-approved modifications.

NYS Professional Engineer 089491

Date

Signature

Tables

Table 1: Remediation Parameters

Figures

Figure 1: Site Location Map
Figure 2: Site Layout and Sample Location Map
Figure 3: Groundwater Elevation Contour Map
Figure 4: Treatment Area Location Plan
Figure 5: Groundwater Monitoring Plan

Appendices

Appendix A: Laboratory Analytical Reports
Appendix B: Product Specifications
Appendix C: MSDS

TABLES

**Table 1
Remediation Parameters
Remedial Design Memorandum**

**Gerard Avenue and East 146th Street
Bronx, New York
BCP Site No.: C203111
Langan Project No.: 170487001**

Matrix Sample ID Laboratory Sample ID Sample Date Sample Depth (feet below grade)	SOIL			GROUNDWATER	
	RB09_18-20 L1922360-01 5/28/2019 18-20	RB09_18-26 L1922360-02 5/28/2019 18-26	RB16_18-28 L1922360-03 5/28/2019 18-28	RMW09 L1922361-02 5/28/2019 NA	RMW16 L1922361-01 5/28/2019 NA
Total Petroleum Hydrocarbons (mg/kg)					
Diesel Range Organics	911	NA	NA	NA	NA
Gasoline Range Organics	780	NA	NA	NA	NA
General Chemistry					
Total Organic Carbon (mg/l)	NA	NA	NA	0.02	0.0043
Total Solids (%)	82.2	NA	NA	NA	NA
Grain Size (%)					
Cobbles	NA	0.1 U	0.1 U	NA	NA
Gravel, Coarse	NA	0.1 U	0.1 U	NA	NA
Gravel, Fine	NA	4.1	26	NA	NA
Gravel, Total	NA	4.1	26	NA	NA
Sand, Coarse	NA	2.4	5	NA	NA
Sand, Medium	NA	15.8	11.5	NA	NA
Sand, Fine	NA	63.1	43.5	NA	NA
Sand, Total	NA	81.3	60	NA	NA
Fines, Total	NA	14.6	14	NA	NA

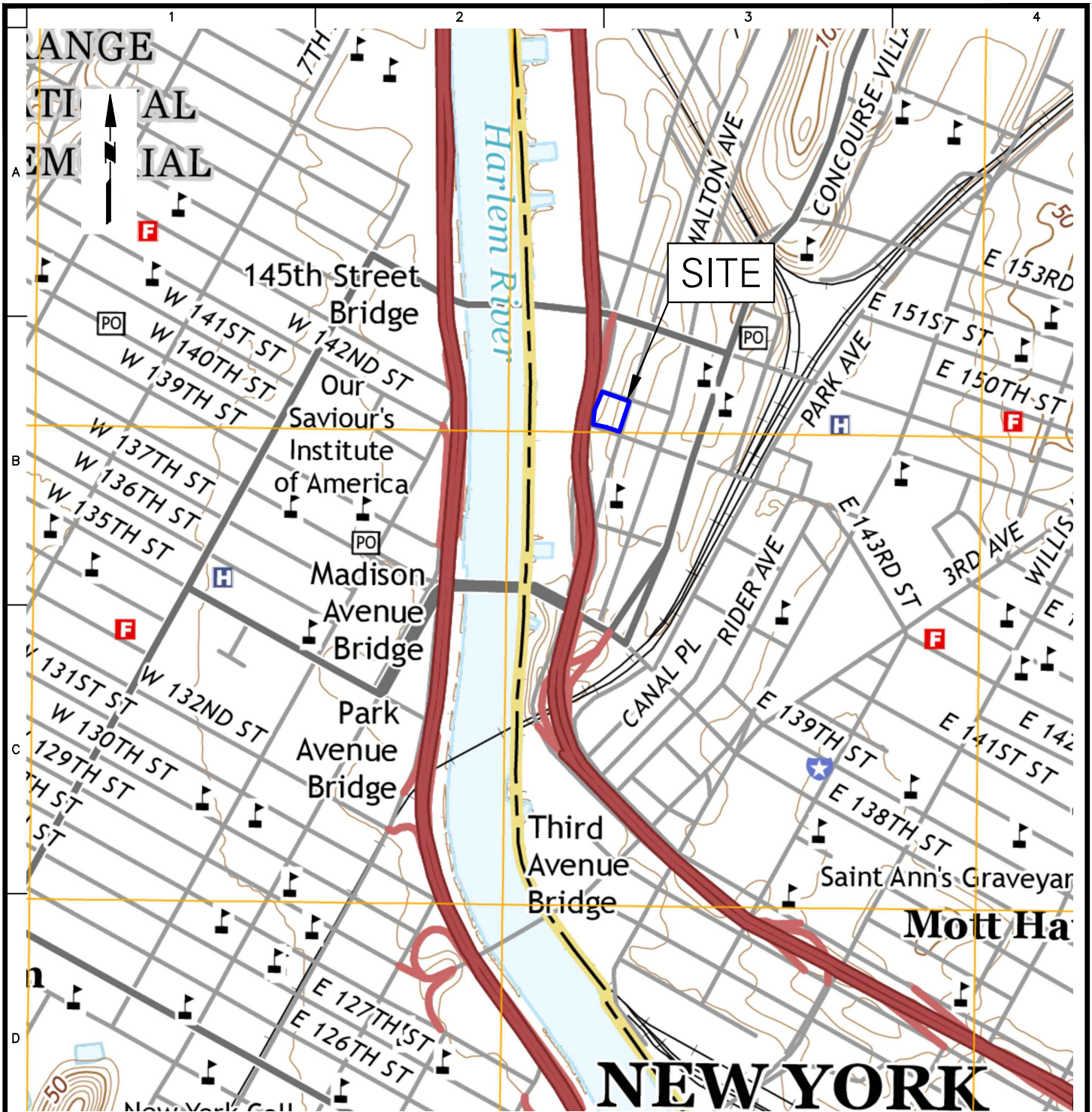
Notes:

1. mg/kg = milligrams per kilogram
2. % = percent
3. NA = not analyzed
4. mg/l = milligram per liter

Qualifiers:

U = The analyte was analyzed for, but was not detected at a level greater than or equal to the Reporting Limit (RL); the value shown in the table is the RL.

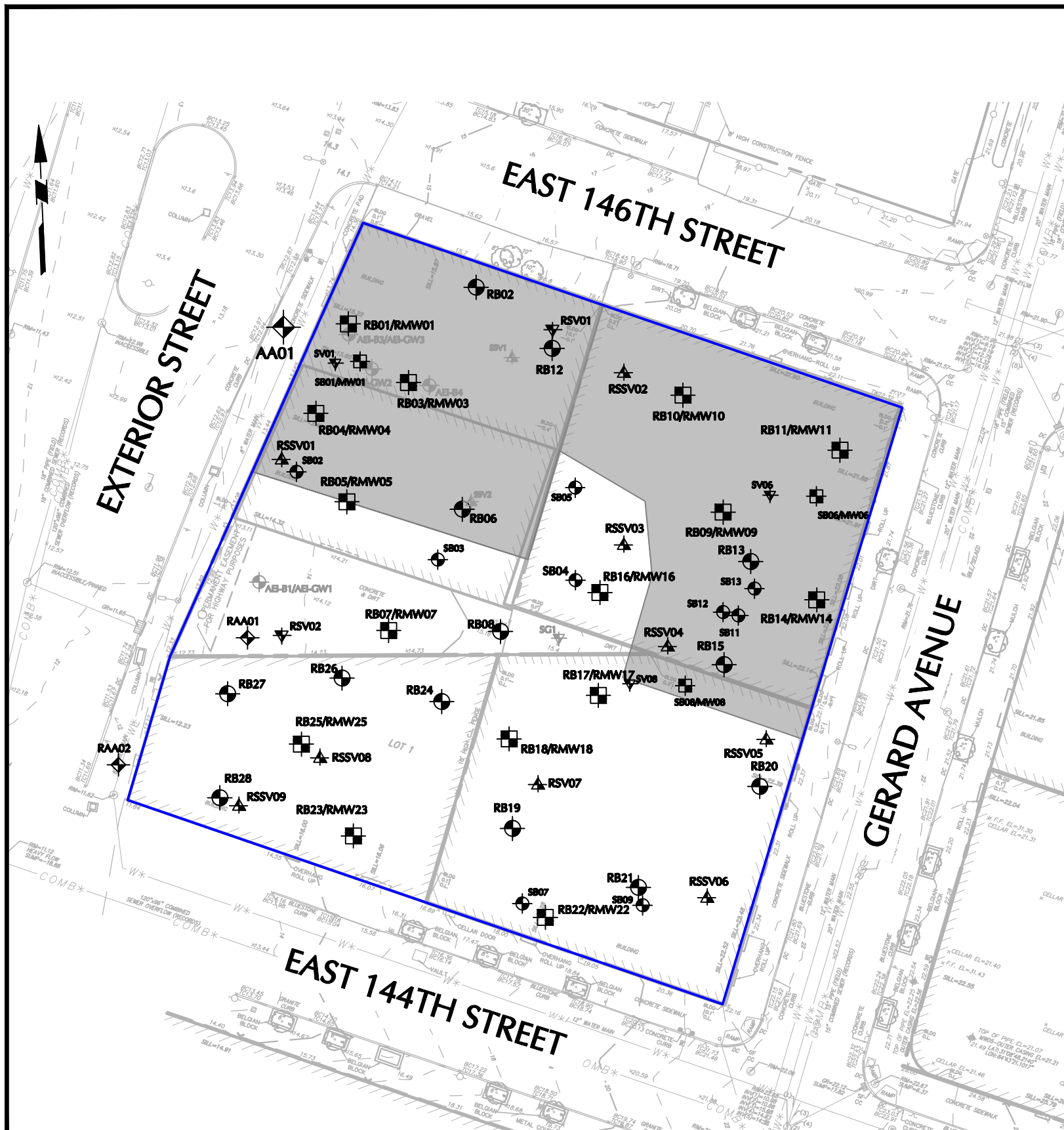
FIGURES








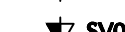






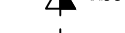

— APPROXIMATE SITE BOUNDARY

NOTE: BASE MAP IS REFERENCED FROM THE UNITED STATES GEOLOGICAL SURVEY (USGS) 7.5 MINUTE SERIES CENTRAL PARK QUADRANGLE MAP, DATED 2016

LANGAN Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com	Project GERARD AVENUE AND EAST 146TH STREET BLOCK No. 2351, LOT Nos. 1, 3, 12, & 20 BRONX NEW YORK	Figure Title SITE LOCATION MAP	Project No. 170487001 Date 06/24/2019 Drawn By VZ Checked By JL	Figure No. 1 Sheet 1 of 5
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LEGEND:

-  SITE BOUNDARY
-  SB03 APPROXIMATE SI SOIL BORING LOCATION (LANGAN, SEPTEMBER 2017)
-  SB01/MW01 APPROXIMATE SI SOIL BORING/MONITORING WELL LOCATION (LANGAN, SEPTEMBER 2017)
-  AEI-B2/AEI-GW2 APPROXIMATE PHASE II ESI SOIL BORING/MONITORING WELL LOCATION (AEI, OCTOBER 2015)
-  AA01 APPROXIMATE SI AMBIENT AIR SAMPLE LOCATION (LANGAN, SEPTEMBER 2017)
-  SV06 APPROXIMATE SI SOIL VAPOR SAMPLE LOCATION (LANGAN, SEPTEMBER 2017)
-  SSV2 APPROXIMATE PHASE II ESI SUB-SLAB SOIL VAPOR SAMPLE LOCATION (AEI, OCTOBER 2015)
-  SG1 APPROXIMATE PHASE II ESI SOIL VAPOR SAMPLE LOCATION (AEI, OCTOBER 2015)
-  RB32 APPROXIMATE RI SOIL BORING LOCATION
-  RB30/RMW30 APPROXIMATE RI SOIL BORING/MONITORING WELL LOCATION
-  RSV01 APPROXIMATE RI SOIL VAPOR SAMPLE LOCATION
-  RSSV07 APPROXIMATE RI SUB-SLAB VAPOR SAMPLE LOCATION
-  RAA01 APPROXIMATE RI AMBIENT AIR SAMPLE LOCATION
-  APPROXIMATE EXTENT OF PETROLEUM PLUME

NOTES:

1. THE BASE MAP IS REFERENCED FROM THE SURVEY PREPARED BY LANGAN DATED OCTOBER 10, 2017.
2. LANGAN CONDUCTED THE LIMITED SUBSURFACE INVESTIGATION (LSI) IN SEPTEMBER 2017 AND THE RI BETWEEN DECEMBER 20, 2018 AND JANUARY 17, 2019.
3. LANGAN LSI BORINGS AND SAMPLE LOCATIONS ARE BASED ON FIELD MEASUREMENTS.
4. AEI PHASE II ESI BORINGS AND SAMPLE LOCATIONS ARE REFERENCED FROM THE OCTOBER 2015 SUBSURFACE INVESTIGATION REPORT.
5. LSI = LIMITED SUBSURFACE INVESTIGATION
6. RI SAMPLE LOCATIONS ARE BASED ON FIELD MEASUREMENTS.
7. ESI = ENVIRONMENTAL SITE INVESTIGATION
8. SI = SUBSURFACE INVESTIGATION
9. RI = REMEDIAL INVESTIGATION
10. INFERRED PETROLEUM PLUME IS BASED ON SOIL AND GROUNDWATER ANALYTICAL DATA AND FIELD OBSERVATIONS.

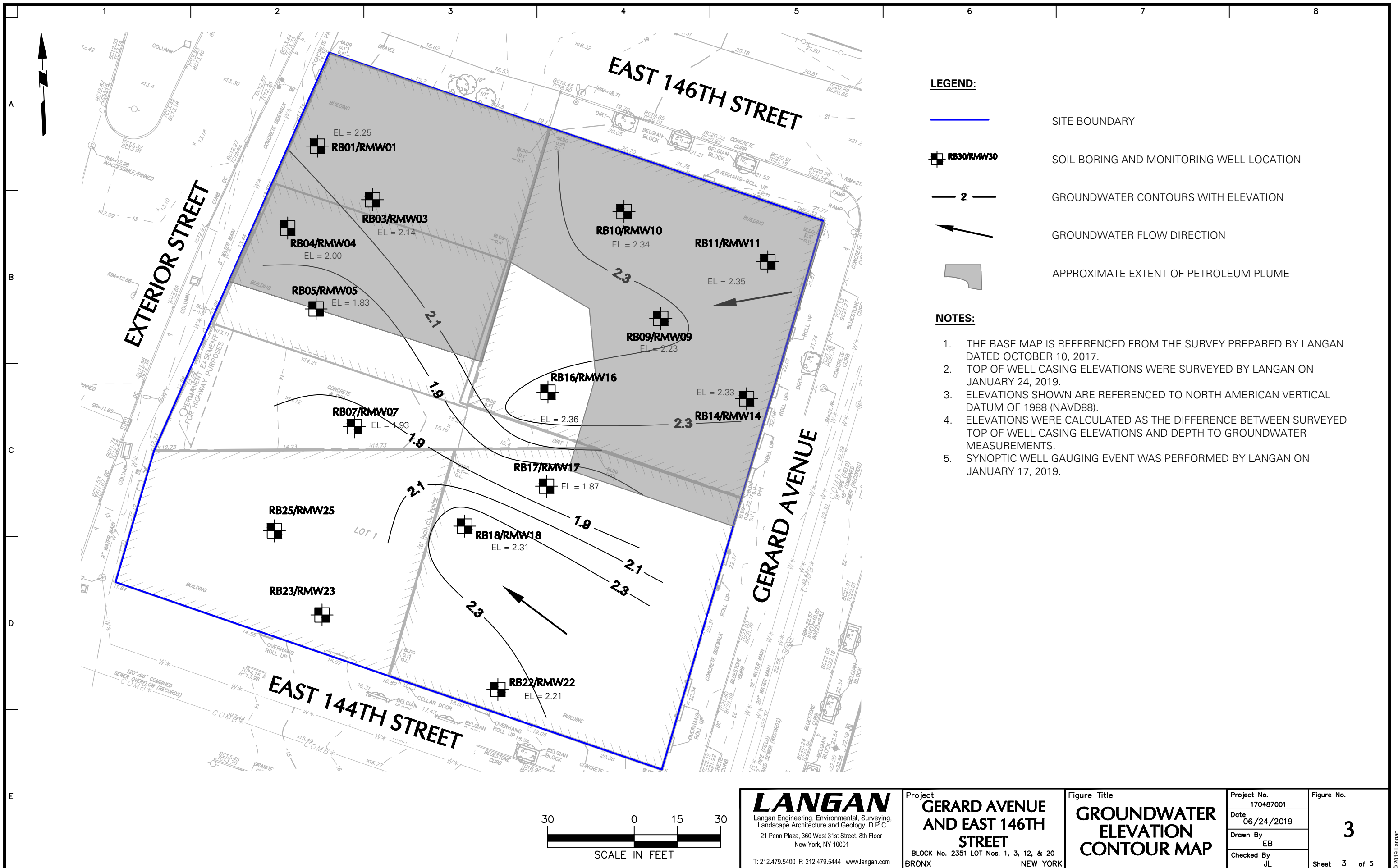
LANGAN
 Langan Engineering, Environmental, Surveying,
 Landscape Architecture and Geology, D.P.C.
 21 Penn Plaza, 360 West 31st Street, 8th Floor
 New York, NY 10001
 T: 212.479.5400 F: 212.479.5444 www.langan.com

Project
**GERARD AVENUE
 AND EAST 146TH
 STREET**
 BLOCK No. 2351 LOT Nos. 1, 3, 12, & 20
 BRONX NEW YORK

Figure Title
**SITE LAYOUT AND
 SAMPLE LOCATION
 PLAN**

Project No.
 170487001
 Date
 06/24/2019
 Drawn By
 VZ
 Checked By
 JL





Figure No.
2
 Sheet 2 of 5



<p>LANGAN Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com</p>	<p>Project GERARD AVENUE AND EAST 146TH STREET</p>	<p>Figure Title GROUNDWATER ELEVATION CONTOUR MAP</p>	<p>Project No. 170487001</p>	<p>Figure No. 3</p>
	<p>BLOCK No. 2351 LOT Nos. 1, 3, 12, & 20 BRONX NEW YORK</p>	<p>Date 06/24/2019</p>	<p>Drawn By EB</p>	<p>Sheet 3 of 5</p>
		<p>Checked By JL</p>		

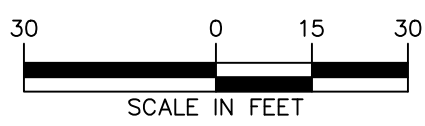


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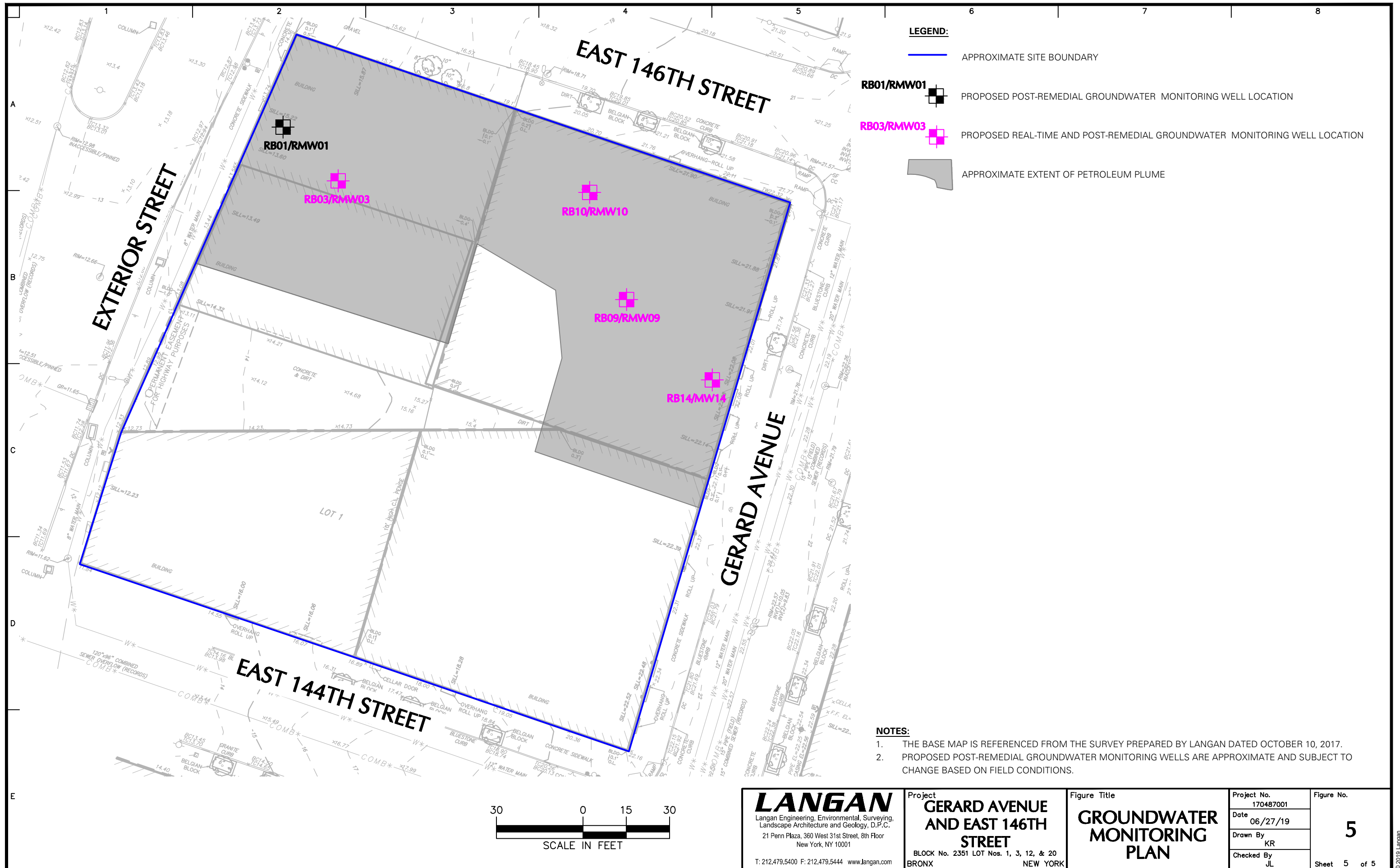
-  APPROXIMATE SITE BOUNDARY
-  PROPOSED INJECTION POINT LOCATION
-  APPROXIMATE RADIUS OF INFLUENCE FOR PERSULFOX AND ORC ADVANCED
-  APPROXIMATE EXTENT OF PETROLEUM PLUME

NOTES:

1. THE BASE MAP IS REFERENCED FROM THE SURVEY PREPARED BY LANGAN DATED OCTOBER 10, 2017.
2. RADIUS OF INFLUENCE CALCULATIONS WERE DETERMINED IN CONSULTATION WITH REMEDIAL CHEMICAL MANUFACTURERS BASED ON SUBSURFACE CONDITIONS AND CONTAMINANT CONCENTRATIONS ENCOUNTERED DURING THE REMEDIAL INVESTIGATION CONDUCTED BY LANGAN BETWEEN DECEMBER 20, 2018 AND JANUARY 17, 2019
3. ALL INJECTION LOCATIONS ARE APPROXIMATE.



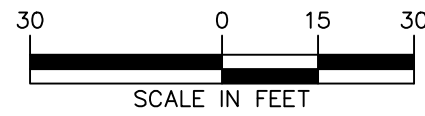
<p>LANGAN Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com</p>	<p>Project GERARD AVENUE AND EAST 146TH STREET BLOCK No. 2351 LOT Nos. 1, 3, 12, & 20 BRONX NEW YORK</p>	<p>Figure Title TREATMENT AREA LOCATION PLAN</p>	<p>Project No. 170487001</p>	<p>Figure No. 4</p>
			<p>Date 02/18/20</p>	<p>Sheet 4 of 5</p>



LEGEND:

- APPROXIMATE SITE BOUNDARY
- PROPOSED POST-REMEDIATION GROUNDWATER MONITORING WELL LOCATION
- PROPOSED REAL-TIME AND POST-REMEDIATION GROUNDWATER MONITORING WELL LOCATION
- APPROXIMATE EXTENT OF PETROLEUM PLUME

- NOTES:**
1. THE BASE MAP IS REFERENCED FROM THE SURVEY PREPARED BY LANGAN DATED OCTOBER 10, 2017.
 2. PROPOSED POST-REMEDIATION GROUNDWATER MONITORING WELLS ARE APPROXIMATE AND SUBJECT TO CHANGE BASED ON FIELD CONDITIONS.



<p>LANGAN Langan Engineering, Environmental, Surveying, Landscape Architecture and Geology, D.P.C. 21 Penn Plaza, 360 West 31st Street, 8th Floor New York, NY 10001 T: 212.479.5400 F: 212.479.5444 www.langan.com</p>	<p>Project GERARD AVENUE AND EAST 146TH STREET</p>	<p>Figure Title GROUNDWATER MONITORING PLAN</p>	<p>Project No. 170487001</p>	<p>Figure No. 5</p>
	<p>BLOCK No. 2351 LOT Nos. 1, 3, 12, & 20 BRONX NEW YORK</p>	<p>Date 06/27/19</p>	<p>Drawn By KR</p>	<p>Checked By JL</p>

APPENDIX A

LABORATORY ANALYTICAL DATA



ANALYTICAL REPORT

Lab Number:	L1922360
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	445 GERARD AVE.
Project Number:	170487001
Report Date:	06/11/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922360
Report Date: 06/11/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1922360-01	RB09_18-20	SOIL	BRONX, NY	05/28/19 10:30	05/28/19
L1922360-02	RB09_18-26	SOIL	BRONX, NY	05/28/19 10:32	05/28/19
L1922360-03	RB16_18-28	SOIL	BRONX, NY	05/28/19 08:50	05/28/19

Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922360
Report Date: 06/11/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922360
Report Date: 06/11/19

Case Narrative (continued)

Report Submission

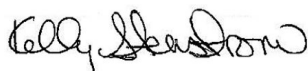
June 11, 2019: This final report includes the results of all requested analyses.

June 04, 2019: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:

 Kelly Stenstrom

Title: Technical Director/Representative

Date: 06/11/19

ORGANICS

PETROLEUM HYDROCARBONS

Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922360
Report Date: 06/11/19

SAMPLE RESULTS

Lab ID: L1922360-01 D
 Client ID: RB09_18-20
 Sample Location: BRONX, NY

Date Collected: 05/28/19 10:30
 Date Received: 05/28/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 06/01/19 19:12
 Analyst: KJD
 Percent Solids: 82%

Extraction Method:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

Gasoline Range Organics - Westborough Lab						
---	--	--	--	--	--	--

Gasoline Range Organics	780000		ug/kg	600000	12000	200
-------------------------	--------	--	-------	--------	-------	-----

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,1,1-Trifluorotoluene	98		70-130
4-Bromofluorobenzene	100		70-130

Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922360
Report Date: 06/11/19

SAMPLE RESULTS

Lab ID: L1922360-01 D
 Client ID: RB09_18-20
 Sample Location: BRONX, NY

Date Collected: 05/28/19 10:30
 Date Received: 05/28/19
 Field Prep: Not Specified

Sample Depth:

Matrix: Soil
 Analytical Method: 1,8015D(M)
 Analytical Date: 06/03/19 14:57
 Analyst: SC
 Percent Solids: 82%

Extraction Method: EPA 3546
 Extraction Date: 05/31/19 10:13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
-----------	--------	-----------	-------	----	-----	-----------------

Petroleum Hydrocarbon Quantitation - Westborough Lab						
--	--	--	--	--	--	--

TPH	911000		ug/kg	193000	22200	5
-----	--------	--	-------	--------	-------	---

Surrogate	% Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	67		40-140

Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922360
Report Date: 06/11/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 05/31/19 09:27
Analyst: MEO

Extraction Method: EPA 3546
Extraction Date: 05/31/19 04:28

Parameter	Result	Qualifier	Units	RL	MDL
Petroleum Hydrocarbon Quantitation - Westborough Lab for sample(s): 01 Batch: WG1242962-1					
TPH	ND		ug/kg	32000	3680

Surrogate	%Recovery	Qualifier	Acceptance Criteria
o-Terphenyl	97		40-140

Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922360
Report Date: 06/11/19

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8015D(M)
Analytical Date: 06/01/19 09:17
Analyst: BAD

Parameter	Result	Qualifier	Units	RL	MDL
Gasoline Range Organics - Westborough Lab for sample(s): 01 Batch: WG1243250-10					
Gasoline Range Organics	1600	J	ug/kg	2500	48.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,1,1-Trifluorotoluene	86		70-130
4-Bromofluorobenzene	95		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922360
Report Date: 06/11/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Petroleum Hydrocarbon Quantitation - Westborough Lab Associated sample(s): 01 Batch: WG1242962-2								
TPH	98		-		40-140	-		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
o-Terphenyl	88				40-140

Lab Control Sample Analysis

Batch Quality Control

Project Name: 445 GERARD AVE.

Project Number: 170487001

Lab Number: L1922360

Report Date: 06/11/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Gasoline Range Organics - Westborough Lab Associated sample(s): 01 Batch: WG1243250-8 WG1243250-9								
Gasoline Range Organics	85		90		80-120	6		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,1,1-Trifluorotoluene	92		97		70-130
4-Bromofluorobenzene	93		99		70-130

INORGANICS & MISCELLANEOUS

Project Name: 445 GERARD AVE.

Project Number: 170487001

Lab Number: L1922360

Report Date: 06/11/19

SAMPLE RESULTS

Lab ID: L1922360-01

Client ID: RB09_18-20

Sample Location: BRONX, NY

Date Collected: 05/28/19 10:30

Date Received: 05/28/19

Field Prep: Not Specified

Sample Depth:

Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.2		%	0.100	NA	1	-	05/29/19 10:57	121,2540G	RI



Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922360
Report Date: 06/11/19

SAMPLE RESULTS

Lab ID: L1922360-02
Client ID: RB09_18-26
Sample Location: BRONX, NY

Date Collected: 05/28/19 10:32
Date Received: 05/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Coarse Gravel	ND		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Fine Gravel	4.10		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Total Gravel	4.10		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Coarse Sand	2.40		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Medium Sand	15.8		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Fine Sand	63.1		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Total Sand	81.3		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Total Fines	14.6		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM



Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922360
Report Date: 06/11/19

SAMPLE RESULTS

Lab ID: L1922360-03
Client ID: RB16_18-28
Sample Location: BRONX, NY

Date Collected: 05/28/19 08:50
Date Received: 05/28/19
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Grain Size Analysis - Mansfield Lab										
Cobbles	ND		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Coarse Gravel	ND		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Fine Gravel	26.0		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Total Gravel	26.0		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Coarse Sand	5.00		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Medium Sand	11.5		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Fine Sand	43.5		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Total Sand	60.0		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM
% Total Fines	14.0		%	0.100	NA	1	-	05/30/19 14:35	12,D6913/D7928	SM



Lab Duplicate Analysis

Batch Quality Control

Project Name: 445 GERARD AVE.

Project Number: 170487001

Lab Number: L1922360

Report Date: 06/11/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG1242191-1 QC Sample: L1922366-01 Client ID: DUP Sample						
Solids, Total	81.4	81.4	%	0		20
Grain Size Analysis - Mansfield Lab Associated sample(s): 02-03 QC Batch ID: WG1242775-1 QC Sample: L1921253-06 Client ID: DUP Sample						
Cobbles	ND	ND	%	NC		20
% Coarse Gravel	ND	ND	%	NC		20
% Fine Gravel	ND	ND	%	NC		20
% Coarse Sand	0.600	ND	%	NC		20
% Medium Sand	2.80	3.10	%	10		20
% Fine Sand	16.2	17.9	%	10		20
% Total Fines	80.4	79.0	%	2		20

Project Name: 445 GERARD AVE.**Lab Number:** L1922360**Project Number:** 170487001**Report Date:** 06/11/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1922360-01A	Glass 60mL/2oz unpreserved	A	NA		3.9	Y	Absent		TS(7),TPH-DRO-D(14)
L1922360-01B	Vial Large Septa unpreserved (4oz)	A	NA		3.9	Y	Absent		TPH-GRO(14)
L1922360-01X9	Vial MeOH preserved split	A	NA		3.9	Y	Absent		TPH-GRO(14)
L1922360-02A	Plastic 8oz unpreserved for Grain Size	A	NA		3.9	Y	Absent		A2-HYDRO-TFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLER(),A2-HYDRO-FGRAVEL()
L1922360-03A	Plastic 8oz unpreserved for Grain Size	A	NA		3.9	Y	Absent		A2-HYDRO-TFINE(),A2-HYDRO-CGRAVEL(),A2-HYDRO-FSAND(),A2-HYDRO-MSAND(),A2-HYDRO-TGRAVEL(),A2-HYDRO-CSAND(),A2-HYDRO-TSAND(),A2-HYDRO-COBBLER(),A2-HYDRO-FGRAVEL()

Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922360
Report Date: 06/11/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: 445 GERARD AVE.**Lab Number:** L1922360**Project Number:** 170487001**Report Date:** 06/11/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922360
Report Date: 06/11/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 12 Annual Book of ASTM Standards. (American Society for Testing and Materials) ASTM International.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

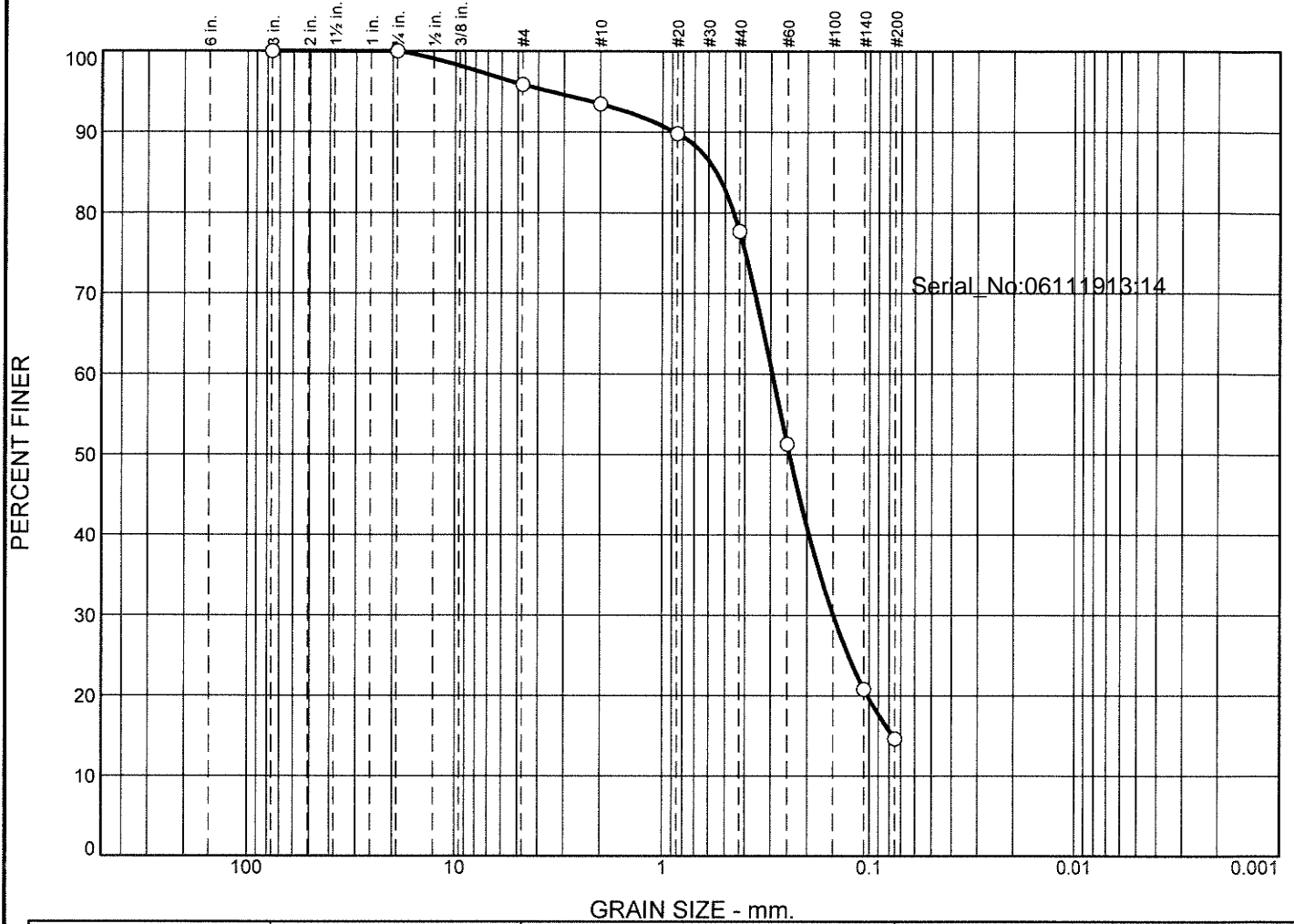
We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Serial_No:06111913:14

ASTM D6913/D7928
GRAIN SIZE ANALYSIS

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines				
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay			
<input type="radio"/>	0.0	0.0	4.1	2.4	15.8	63.1	14.6				
<input checked="" type="checkbox"/>	Colloids	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
<input type="radio"/>				0.5508	0.2949	0.2437	0.1494	0.0768			

Material Description	USCS	AASHTO
<input type="radio"/>		

Project No. <input type="text"/>	Client: <input type="text"/>	Remarks:
Project: <input type="text"/>		
<input type="radio"/> Source of Sample: RB09_18-26 <input type="radio"/> Sample Number: L1922360-02		
Date: <input type="text"/>		
Alpha Analytical Mansfield, MA		

Figure

GRAIN SIZE DISTRIBUTION TEST DATA

6/4/2019

Location: RB09_18-26

Sample Number: L1922360-02

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 72.57
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
72.57	0.00	3	0.00	0.00	100.0
		0.75	0.00	0.00	100.0
		#4	3.00	0.00	95.9
		#10	1.74	0.00	93.5
		#20	2.65	0.00	89.8
		#40	8.79	0.00	77.7
		#60	19.17	0.00	51.3
		#140	22.12	0.00	20.8
		#200	4.49	0.00	14.6

Serial_No:06111913:14

Fractional Components

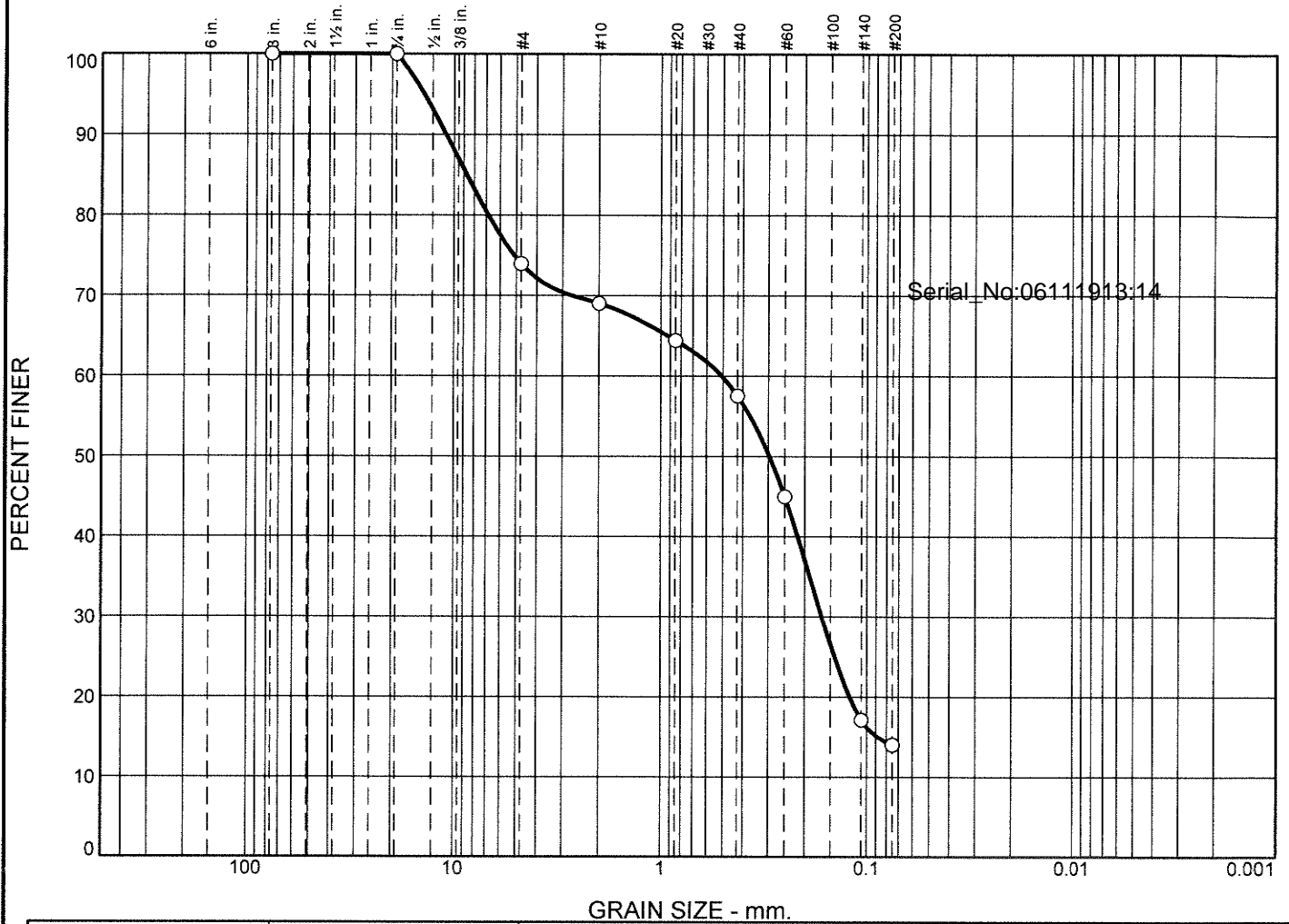
Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	4.1	4.1	2.4	15.8	63.1	81.3			14.6

D ₅	D ₁₀	D ₁₅	D ₂₀	D ₃₀	D ₄₀	D ₅₀	D ₆₀	D ₈₀	D ₈₅	D ₉₀	D ₉₅
		0.0768	0.1020	0.1494	0.1958	0.2437	0.2949	0.4536	0.5508	0.8759	3.5002

Fineness Modulus

1.43

Particle Size Distribution Report



GRAIN SIZE - mm.											
% +3"	% Gravel		% Sand			% Fines					
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay				
0.0	0.0	26.0	5.0	11.5	43.5	14.0					
<input checked="" type="checkbox"/>	Colloids	LL	PL	D ₈₅	D ₆₀	D ₅₀	D ₃₀	D ₁₅	D ₁₀	C _c	C _u
<input type="checkbox"/>				8.6804	0.5070	0.2966	0.1652	0.0887			

Material Description	USCS	AASHTO
<input type="checkbox"/>		

<p>Project No. Client:</p> <p>Project:</p> <p><input type="checkbox"/> Source of Sample: RB16_18-28 Sample Number: L1922360-03</p> <p>Date: <input type="checkbox"/></p> <p style="text-align: center;">Alpha Analytical</p> <p style="text-align: center;">Mansfield, MA</p>	<p>Remarks:</p> <p style="text-align: right;">Figure</p>
---	---

GRAIN SIZE DISTRIBUTION TEST DATA

6/4/2019

Location: RB16_18-28

Sample Number: L1922360-03

Sieve Test Data

Post #200 Wash Test Weights (grams): Dry Sample and Tare = 101.14
 Tare Wt. = 0.00
 Minus #200 from wash = 0.0%

Dry Sample and Tare (grams)	Tare (grams)	Sieve Opening Size	Weight Retained (grams)	Sieve Weight (grams)	Percent Finer
101.14	0.00	3	0.00	0.00	100.0
		0.75	0.00	0.00	100.0
		#4	26.34	0.00	74.0
		#10	4.97	0.00	69.0
		#20	4.66	0.00	64.4
		#40	6.97	0.00	57.5
		#60	12.70	0.00	45.0
		#140	28.16	0.00	17.1
		#200	3.17	0.00	14.0

Serial_No:06111913:14

Fractional Components

Cobbles	Gravel			Sand				Fines		
	Coarse	Fine	Total	Coarse	Medium	Fine	Total	Silt	Clay	Total
0.0	0.0	26.0	26.0	5.0	11.5	43.5	60.0			14.0

D5	D10	D15	D20	D30	D40	D50	D60	D80	D85	D90	D95
		0.0887	0.1210	0.1652	0.2163	0.2966	0.5070	6.8356	8.6804	10.9219	13.9498

Fineness Modulus
2.64

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO₂, NO₃.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.


EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Remedial Parameters - Sewer Treatability

 NEW YORK CHAIN OF CUSTODY		Service Centers Mahwah, NJ 07430: 35 Whitney Rd, Suite 5 Albany, NY 12205: 14 Walker Way Tonawanda, NY 14150: 275 Cooper Ave, Suite 105		Page <u>1</u> of <u>1</u>	Date Rec'd in Lab <u>5/29/19</u>	ALPHA Job # <u>L1922360</u>	
Westborough, MA 01581 8 Walkup Dr. TEL: 508-898-9220 FAX: 508-898-9193		Mansfield, MA 02048 320 Forbes Blvd TEL: 508-822-9300 FAX: 508-822-3288		Project Information Project Name: <u>445 GERARD AVE.</u> Project Location: <u>BROOK, NY</u> Project # <u>170457001</u> (Use Project name as Project #) <input type="checkbox"/>		Deliverables <input type="checkbox"/> ASP-A <input type="checkbox"/> ASP-B <input type="checkbox"/> EQUIS (1 File) <input type="checkbox"/> EQUIS (4 File) <input type="checkbox"/> Other	Billing Information <input checked="" type="checkbox"/> Same as Client Info PO #
Client Information Client: <u>LAWRENCE, DPC</u> Address: Phone: Fax: Email: <u>JLEWIS@earth.com</u>		Project Manager: <u>JULIA LEWIS</u> ALPHAQuote #: Turn-Around Time Standard <input checked="" type="checkbox"/> Rush (only if pre approved) <input type="checkbox"/> Due Date: # of Days:		Regulatory Requirement <input type="checkbox"/> NY TOGS <input type="checkbox"/> NY Part 375 <input type="checkbox"/> AWQ Standards <input type="checkbox"/> NY CP-51 <input type="checkbox"/> NY Restricted Use <input type="checkbox"/> Other <input type="checkbox"/> NY Unrestricted Use <input type="checkbox"/> NYC Sewer Discharge		Disposal Site Information Please identify below location of applicable disposal facilities. Disposal Facility: <input type="checkbox"/> NJ <input type="checkbox"/> NY <input type="checkbox"/> Other:	
These samples have been previously analyzed by Alpha <input type="checkbox"/>				ANALYSIS		Sample Filtration <input type="checkbox"/> Done <input type="checkbox"/> Lab to do Preservation <input type="checkbox"/> Lab to do (Please Specify below)	
Other project specific requirements/comments:				Total Bottle			
Please specify Metals or TAL.				Sample Specific Comments			
ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials		
<u>22360 - 01</u>	<u>RB09-18-20</u>	<u>5/28/19</u>	<u>10:30</u>	<u>Soil</u>	<u>JL</u>	<u>GRAIN SIZE</u>	
<u>- 02</u>	<u>KB09-18-26</u>	<u>I</u>	<u>10:32</u>	<u>I</u>	<u>I</u>	<u>TPH-D10</u>	
<u>- 03</u>	<u>RB16-18-28</u>	<u>I</u>	<u>8:50</u>	<u>I</u>	<u>I</u>	<u>TPH-600</u>	
Preservative Code: A = None B = HCl C = HNO ₃ D = H ₂ SO ₄ E = NaOH F = MeOH G = NaHSO ₄ H = Na ₂ S ₂ O ₃ K/E = Zn Ac/NaOH O = Other		Container Code P = Plastic A = Amber Glass V = Vial G = Glass B = Bacteria Cup C = Cube O = Other E = Encore D = BOD Bottle		Westboro: Certification No: MA935 Mansfield: Certification No: MA015		Container Type Preservative	
Relinquished By: <u>[Signature]</u>		Date/Time: <u>5/28/19 14:02</u>		Received By: <u>[Signature]</u>		Date/Time: <u>5/29/19 00:30</u>	
Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)							



ANALYTICAL REPORT

Lab Number:	L1922361
Client:	Langan Engineering & Environmental 21 Penn Plaza 360 W. 31st Street, 8th Floor New York, NY 10001-2727
ATTN:	Julia Leung
Phone:	(212) 479-5400
Project Name:	445 GERARD AVE.
Project Number:	170487001
Report Date:	06/03/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922361
Report Date: 06/03/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1922361-01	RMW16	WATER	BRONX, NY	05/28/19 11:00	05/28/19
L1922361-02	RMW09	WATER	BRONX, NY	05/28/19 12:45	05/28/19

Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922361
Report Date: 06/03/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922361
Report Date: 06/03/19

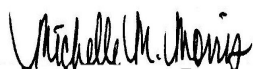
Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature:



Michelle M. Morris

Title: Technical Director/Representative

Date: 06/03/19

INORGANICS & MISCELLANEOUS

Project Name: 445 GERARD AVE.

Project Number: 170487001

Lab Number: L1922361

Report Date: 06/03/19

SAMPLE RESULTS

Lab ID: L1922361-01

Client ID: RMW16

Sample Location: BRONX, NY

Date Collected: 05/28/19 11:00

Date Received: 05/28/19

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Total Organic Carbon	4.3		mg/l	0.50	0.11	1	-	05/30/19 06:59	1,9060A	DW



Project Name: 445 GERARD AVE.**Project Number:** 170487001**Lab Number:** L1922361**Report Date:** 06/03/19**SAMPLE RESULTS**

Lab ID: L1922361-02

Client ID: RMW09

Sample Location: BRONX, NY

Date Collected: 05/28/19 12:45

Date Received: 05/28/19

Field Prep: Not Specified

Sample Depth:

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Total Organic Carbon	20.		mg/l	5.0	1.1	10	-	05/30/19 06:59	1,9060A	DW



Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922361
Report Date: 06/03/19

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-02 Batch: WG1242494-1										
Total Organic Carbon	0.12	J	mg/l	0.50	0.11	1	-	05/30/19 06:59	1,9060A	DW

Lab Control Sample Analysis

Batch Quality Control

Project Name: 445 GERARD AVE.

Project Number: 170487001

Lab Number: L1922361

Report Date: 06/03/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 Batch: WG1242494-2								
Total Organic Carbon	101		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: 445 GERARD AVE.

Lab Number: L1922361

Project Number: 170487001

Report Date: 06/03/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Qual	MSD Found	MSD %Recovery	MSD Qual	Recovery Limits	RPD	RPD Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1242494-4 QC Sample: L1922033-02 Client ID: MS Sample												
Total Organic Carbon	33.	80	120	104	-	-	-	-	80-120	-	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: 445 GERARD AVE.

Project Number: 170487001

Lab Number: L1922361

Report Date: 06/03/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG1242494-3 QC Sample: L1922033-02 Client ID: DUP Sample						
Total Organic Carbon	33.	33	mg/l	0		20

Project Name: 445 GERARD AVE.**Lab Number:** L1922361**Project Number:** 170487001**Report Date:** 06/03/19**Sample Receipt and Container Information**

Were project specific reporting limits specified?

YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L1922361-01A	Vial H2SO4 preserved	A	NA		3.3	Y	Absent		TOC-9060(28)
L1922361-01B	Vial H2SO4 preserved	A	NA		3.3	Y	Absent		TOC-9060(28)
L1922361-01C	Vial H2SO4 preserved	A	NA		3.3	Y	Absent		TOC-9060(28)
L1922361-02A	Vial H2SO4 preserved	A	NA		3.3	Y	Absent		TOC-9060(28)
L1922361-02B	Vial H2SO4 preserved	A	NA		3.3	Y	Absent		TOC-9060(28)
L1922361-02C	Vial H2SO4 preserved	A	NA		3.3	Y	Absent		TOC-9060(28)

Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922361
Report Date: 06/03/19

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Footnotes

Report Format: DU Report with 'J' Qualifiers



Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922361
Report Date: 06/03/19

- 1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1.8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.
- J** - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- ND** - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

Report Format: DU Report with 'J' Qualifiers



Project Name: 445 GERARD AVE.
Project Number: 170487001

Lab Number: L1922361
Report Date: 06/03/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene

EPA 8260C: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.

EPA 8270D: NPW: Dimethylnaphthalene, 1,4-Diphenylhydrazine; SCM: Dimethylnaphthalene, 1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS

EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene,

3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE,**

EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B

EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.

Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, SM9222D.**

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300:** Chloride, Sulfate, Nitrate.

EPA 624.1: Volatile Halocarbons & Aromatics,

EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.**

Mansfield Facility:

Drinking Water

EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1 Hg.**

EPA 522.

Non-Potable Water

EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.

EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.

EPA 245.1 Hg.

SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

APPENDIX B

PRODUCT SPECIFICATIONS

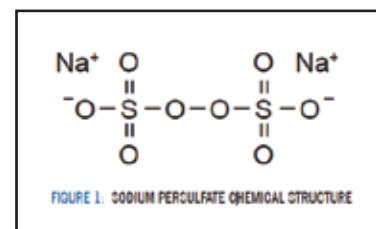
PersulfOx® Technical Description

PersulfOx is an *In Situ* Chemical Oxidation (ISCO) reagent that destroys organic contaminants found in groundwater and soil through powerful, yet controlled, chemical reactions. A sodium persulfate-based technology (figure 1), PersulfOx employs a patented catalyst to enhance the oxidative destruction of both hydrocarbons and chlorinated contaminants in the subsurface.

Typically, sodium persulfate is activated with the addition of heat, chelated metals, hydrogen peroxide, or base in order to generate sulfate radicals. These activation processes are inherently complex, costly and can pose additional health and safety risks. In comparison, PersulfOx is a relatively safe and easy-to-use ISCO agent with a built-in catalyst which activates the persulfate component, generating contaminant-destroying free radicals without the need for the addition of a separate activator. The equation below shows the net complete oxidation of toluene, a constituent of gasoline, by PersulfOx:



Example of PersulfOx



For a list of treatable contaminants with the use of PersulfOx, view the [Range of Treatable Contaminants Guide](#)

Chemical Composition

- Sodium Persulfate - CAS #7775-27-1
- Sodium Silicate - CAS #1344-09-8

Properties

- pH - 7 to 11.5 at 25°C
- Appearance - White, free-flowing powder, clear to cloudy when mixed with water
- Odor - Not detectable
- Vapor Pressure - None
- Chemical Hazard Classification - Class 5.1 Oxidizer

Storage and Handling Guidelines

Storage

- Store locked up
- Keep away from heat
- Store in a cool, dry place out of direct sunlight

Handling

- Minimize dust generation and accumulation
- Routine housekeeping should be instituted to ensure that dust does not accumulate on surfaces

PersulfOx[®] Technical Description

Storage (continued)

- Store in original tightly closed container
- Store in a well-ventilated place
- Do not store near combustible materials
- Store away from incompatible materials
- Recommended to store at less than 40°C
- Provide appropriate exhaust ventilation in places where dust is formed

Handling (continued)

- Avoid mixing with combustibles
- Avoid contamination
- Keep away from clothing and other combustible materials
- Wear appropriate personal protective equipment
- Avoid breathing dust
- Avoid contact with eyes, skin, and clothing
- Avoid prolonged exposure
- Do not taste or swallow
- When using, do not eat, drink or smoke
- Wear appropriate personal protective equipment
- Wash hands thoroughly after handling
- Observe good industrial hygiene practices

Applications

- PersulfOx is mixed with water at a rate of 5% to 20% prior to application.
- For most applications, REGENESIS suggests a 10-15% solution. The resulting mixture has viscosity similar to water.
- Injects into formation through direct push injection points, injection wells or other injection delivery systems.

Application instructions for this product are contained here [PersulfOx Application Instructions](#).

Health and Safety

Material is relatively safe to handle; however, avoid contact with eyes, skin and clothing. OSHA Level D personal protection equipment including: vinyl or rubber gloves, eye protection, and dust mask are recommended when handling this product. Please review the Material Safety Data Sheet for additional storage, usage, and handling requirements here: [PersulfOx SDS](#).



**OXYGEN
RELEASE
COMPOUND**

ORC Advanced® Technical Description

ORC Advanced® is an engineered, oxygen release compound designed specifically for enhanced, *in situ* aerobic bioremediation of petroleum hydrocarbons in groundwater and saturated soils. Upon contact with groundwater, this calcium oxyhydroxide-based material becomes hydrated producing a controlled release of molecular oxygen (17% by weight) for periods of up to 12 months on a single application.

ORC Advanced decreases time to site closure and accelerates degradation rates up to 100 times faster than natural degradation rates. A single ORC Advanced application can support aerobic biodegradation for up to 12 months with minimal site disturbance, no permanent or emplaced above ground equipment, piping, tanks, power sources, etc are needed. There is no operation or maintenance required. ORC Advanced provides lower costs, greater efficiency and reliability compared to engineered mechanical systems, oxygen emitters and bubblers.



Example of ORC Advanced

ORC Advanced provides remediation practitioners with a significantly faster and highly effective means of treating petroleum contaminated sites. Petroleum hydrocarbon contamination is often associated with retail petroleum service stations resulting from leaking underground storage tanks, piping and dispensers. As a result, ORC Advanced technology and applications have been tailored around the remediation needs of the retail petroleum industry and include: tank pit excavations, amending and mixing with backfill, direct-injection, bore-hole backfill, ORC Advanced Pellets for waterless and dustless application, combined ISCO and bioremediation applications, etc.

For a list of treatable contaminants with the use of ORC Advanced, view the [Range of Treatable Contaminants Guide](#)

Chemical Composition

- Calcium hydroxide oxide
- Calcium hydroxide
- Monopotassium phosphate
- Dipotassium phosphate

Properties

- Physical state: Solid
- Form: Powder
- Odor: Odorless
- Color: White to pale yellow
- pH: 12.5 (3% suspension/water)



ORC Advanced® Technical Description

Storage and Handling Guidelines

Storage

- Store in a cool, dry place out of direct sunlight
- Store in original tightly closed container
- Store in a well-ventilated place
- Do not store near combustible materials
- Store away from incompatible materials
- Provide appropriate exhaust ventilation in places where dust is formed

Handling

- Minimize dust generation and accumulation
- Keep away from heat
- Routine housekeeping should be instituted to ensure that dust does not accumulate on surfaces
- Observe good industrial hygiene practices
- Take precaution to avoid mixing with combustibles
- Keep away from clothing and other combustible materials
- Avoid contact with water and moisture
- Avoid contact with eyes, skin, and clothing
- Avoid prolonged exposure
- Wear appropriate personal protective equipment

Applications

- Slurry mixture direct-push injection through hollow rods or direct-placement into boreholes
- *In situ* or *ex situ* slurry mixture into contaminated backfill or contaminated soils in general
- Slurry mixture injections in conjunction with chemical oxidants like RegenOx or PersulfOx
- Filter sock applications in groundwater for highly localized treatment
- *Ex situ* biopiles

Health and Safety

Wash thoroughly after handling. Wear protective gloves, eye protection, and face protection. Please review the [ORC Advanced Safety Data Sheet](#) for additional storage, usage, and handling requirements.



www.regensis.com
1011 Calle Sombra, San Clemente CA 92673
949.366.8000

APPENDIX C

MATERIAL SAFETY DATA SHEETS

1. Identification

Product identifier	PersulfOx®
Other means of identification	None.
Recommended use	Soil and Groundwater Remediation.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Company Name	RegenesiS
Address	1011 Calle Sombra San Clemente, CA 92673
Telephone	949-366-8000
E-mail	CustomerService@regenesiS.com
Emergency phone number	CHEMTREC® at 1-800-424-9300 (International)

2. Hazard(s) identification

Physical hazards	Oxidizing solids	Category 3
Health hazards	Acute toxicity, oral	Category 4
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Sensitization, respiratory	Category 1
	Sensitization, skin	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
OSHA defined hazards	Not classified.	

Label elements


Signal word Danger

Hazard statement May intensify fire; oxidizer. Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory irritation.

Precautionary statement
Prevention

Keep away from heat. Keep/Store away from clothing and other combustible materials. Avoid breathing dust. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/eye protection/face protection. In case of inadequate ventilation wear respiratory protection.

Response

If swallowed: Call a poison center/doctor if you feel unwell. If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center/doctor if you feel unwell. Rinse mouth. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. If experiencing respiratory symptoms: Call a poison center/doctor. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.

Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)

None known.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Silicic Acid, sodium salt, sodium silicate	1344-09-8	≤10
Sodium Persulfate	7775-27-1	≥90

Composition comments All concentrations are in percent by weight unless otherwise indicated.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.

Eye contact

Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Never give anything by mouth to a victim who is unconscious or is having convulsions. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical advice/attention if you feel unwell.

Most important symptoms/effects, acute and delayed

Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Dusts may irritate the respiratory tract, skin and eyes. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

General information

Take off all contaminated clothing immediately. Contact with combustible material may cause fire. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Water spray, fog (flooding amounts).

Unsuitable extinguishing media

Do not use water unless flooding amounts are available. Material reacts with water. Do not use carbon dioxide or other gas filled fire extinguishers; they will have no effect on decomposing persulfates.

Specific hazards arising from the chemical

Greatly increases the burning rate of combustible materials. Containers may explode when heated. During fire, gases hazardous to health may be formed. Combustion products may include: sulfur oxides.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.

Specific methods

Cool containers exposed to flames with water until well after the fire is out. Avoid dust formation.

General fire hazards

May intensify fire; oxidizer. Contact with combustible material may cause fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep away from clothing and other combustible materials. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of dust. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Collect dust using a vacuum cleaner equipped with HEPA filter. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Ventilate the contaminated area. Stop the flow of material, if this is without risk. Spillage collected should be monitored for signs of reaction or decomposition (fuming/smoking). If spilled material is wet, dissolve with large quantity of water.

Large Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Minimize dust generation and accumulation. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Place all material into loosely covered plastic containers for later disposal. For waste disposal, see section 13 of the SDS. Wear appropriate protective equipment and clothing during clean-up.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Keep away from heat. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Avoid contamination. Wear appropriate personal protective equipment (See Section 8). Avoid breathing dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Do not store near combustible materials. Store away from incompatible materials (see Section 10 of the SDS). Recommended storage temperature: less than 40°C.

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value
Sodium Persulfate (CAS 7775-27-1)	TWA	0.1 mg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Use dust-tight, unvented chemical safety goggles when there is potential for eye contact.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. Frequent change is advisable. Rubber, neoprene or PVC gloves are recommended.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Respirator type: approved respirator with P100 filters.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Free-flowing powder
Color	White.
Odor	Odorless.
Odor threshold	Not available.
pH	11.5 (10% suspension/water) (10 % solution, 77 °F (25 °C))
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not applicable.
Evaporation rate	Not available.
Flammability (solid, gas)	Oxidizer.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.5 - 1.8 (68 °F (20 °C))
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Decomposition will occur upon heating.
Viscosity	Not available.
Other information	
Flammability	Non combustible.

10. Stability and reactivity

Reactivity	Greatly increases the burning rate of combustible materials.
Chemical stability	Decomposes on heating.
Possibility of hazardous reactions	Oxidizing, avoid contact with reducing agents.
Conditions to avoid	Heat. Contact with incompatible materials. Avoid dust formation.
Incompatible materials	Acids. Bases. Combustible material. Reducing agents. Metals. Organic compounds.
Hazardous decomposition products	Oxygen. Sulfur oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause allergy or asthma symptoms or breathing difficulties if inhaled. Dust may irritate respiratory system.
Skin contact	Causes skin irritation. May cause an allergic skin reaction.
Eye contact	Causes serious eye irritation.
Ingestion	Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Severe eye irritation. Dusts may irritate the respiratory tract, skin and eyes. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Difficulty in breathing. Skin irritation. May cause redness and pain. May cause an allergic skin reaction. Dermatitis. Rash.

Information on toxicological effects

Acute toxicity Harmful if swallowed. May cause allergic respiratory and skin reactions. May cause respiratory irritation.

Components	Species	Test Results
Silicic Acid, sodium salt, sodium silicate (CAS 1344-09-8)		
Acute		
<i>Oral</i>		
LD50	Rat	1280 mg/kg
Sodium Persulfate (CAS 7775-27-1)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 10000 mg/kg
<i>Inhalation</i>		
LC50	Rat	> 5.1 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	895 mg/kg

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye irritation Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Skin sensitization May cause an allergic skin reaction.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure May cause respiratory irritation.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Chronic effects Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results	
Silicic Acid, sodium salt, sodium silicate (CAS 1344-09-8)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	247 mg/l, 4.2 days
Sodium Persulfate (CAS 7775-27-1)			
Aquatic			
Crustacea	EC50	Daphnia	133 mg/l, 48 hours
Fish		Bluegill (Lepomis macrochirus)	771 mg/l, 96 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Mobility in soil No data available.

Other adverse effects None known.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT

UN number UN1479
UN proper shipping name Oxidizing solid, n.o.s. (Sodium Persulfate Mixture)
Transport hazard class(es)
Class 5.1
Subsidiary risk -
Label(s) 5.1
Packing group III
Environmental hazards
Marine pollutant No
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions 62, IB8, IP3, T1, TP33
Packaging exceptions 152
Packaging non bulk 213
Packaging bulk 240

IATA

UN number UN1479
UN proper shipping name Oxidizing solid, n.o.s. (Sodium Persulfate Mixture)
Transport hazard class(es)
Class 5.1
Subsidiary risk -
Packing group III
Environmental hazards No
ERG Code 5L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number UN1479
UN proper shipping name OXIDIZING SOLID, N.O.S. (Sodium Persulfate Mixture)
Transport hazard class(es)
Class 5.1
Subsidiary risk -
Packing group III
Environmental hazards
Marine pollutant No
EmS F-A, S-Q
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

- Immediate Hazard - Yes
- Delayed Hazard - No
- Fire Hazard - Yes
- Pressure Hazard - No
- Reactivity Hazard - Yes

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

US state regulations**US. Massachusetts RTK - Substance List**

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Sodium Persulfate (CAS 7775-27-1)

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date 12-February-2015

Revision date 02-April-2015

Version # 02

Further information HMIS® is a registered trade and service mark of the American Coatings Association (ACA).

HMIS® ratings Health: 2*
Flammability: 0
Physical hazard: 1

NFPA ratings



Disclaimer

Regenesis cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

1. Identification

Product identifier Oxygen Release Compound Advanced (ORC Advanced®)
Other means of identification None.
Recommended use Soil and Groundwater Remediation.
Recommended restrictions None known.
Manufacturer/Importer/Supplier/Distributor information
Company Name RegenesiS
Address 1011 Calle Sombra
 San Clemente, CA 92673
Telephone 949-366-8000
E-mail CustomerService@regenesiS.com
Emergency phone number CHEMTREC® at 1-800-424-9300 (International)

2. Hazard(s) identification

Physical hazards Oxidizing solids Category 2
Health hazards Skin corrosion/irritation Category 1
 Serious eye damage/eye irritation Category 1
OSHA defined hazards Not classified.

Label elements


Signal word Danger
Hazard statement May intensify fire; oxidizer. Causes skin irritation. Causes serious eye damage.
Precautionary statement
Prevention Keep away from heat. Keep/Store away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Wash thoroughly after handling. Wear protective gloves/eye protection/face protection.
Response If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish.
Storage Store away from incompatible materials.
Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC) None known.

3. Composition/information on ingredients
Mixtures

Chemical name	CAS number	%
Calcium hydroxide oxide	682334-66-3	≥85
Calcium hydroxide	1305-62-0	≤15
Dipotassium Phosphate	7758-11-4	<5
Monopotassium Phosphate	7778-77-0	<5

Composition comments All concentrations are in percent by weight unless otherwise indicated.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	IF ON CLOTHING: rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Ingestion	Never give anything by mouth to a victim who is unconscious or is having convulsions. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Dusts may irritate the respiratory tract, skin and eyes. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Take off all contaminated clothing immediately. Contact with combustible material may cause fire. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Water spray, fog (flooding amounts). Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Greatly increases the burning rate of combustible materials. Containers may explode when heated. During fire, gases hazardous to health may be formed. Combustion products may include: metal oxides.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers.
Specific methods	Cool containers exposed to flames with water until well after the fire is out.
General fire hazards	May intensify fire; oxidizer. Contact with combustible material may cause fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep away from clothing and other combustible materials. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	<p>Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Collect dust using a vacuum cleaner equipped with HEPA filter. Keep combustibles (wood, paper, oil, etc.) away from spilled material. Ventilate the contaminated area. Stop the flow of material, if this is without risk. Absorb in vermiculite, dry sand or earth and place into containers.</p> <p>Large Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Shovel the material into waste container. Minimize dust generation and accumulation. Avoid the generation of dusts during clean-up. Following product recovery, flush area with water.</p> <p>Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</p> <p>Never return spills to original containers for re-use. Place all material into loosely covered plastic containers for later disposal. For waste disposal, see section 13 of the SDS. Wear appropriate protective equipment and clothing during clean-up.</p>
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Keep away from heat. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Avoid contact with water and moisture. Do not get this material in contact with eyes. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Keep away from heat. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Do not store near combustible materials. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value	Form
Calcium hydroxide (CAS 1305-62-0)	PEL	5 mg/m ³	Respirable fraction.
		15 mg/m ³	Total dust.

US. ACGIH Threshold Limit Values

Components	Type	Value
Calcium hydroxide (CAS 1305-62-0)	TWA	5 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Calcium hydroxide (CAS 1305-62-0)	TWA	5 mg/m ³

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. If engineering measures are not sufficient to maintain concentrations of dust particulates below the Occupational Exposure Limit (OEL), suitable respiratory protection must be worn. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection

Use dust-tight, unvented chemical safety goggles when there is potential for eye contact.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Frequent change is advisable. Recommended gloves include rubber, neoprene, nitrile or viton.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Recommended use: Wear respirator with dust filter.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Keep from contact with clothing and other combustible materials. Remove and wash contaminated clothing promptly. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Powder.
Color	White to pale yellow.

Odor	Odorless.
Odor threshold	Not available.
pH	12.5 (3% suspension/water)
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Oxidizer.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.

Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.

Solubility(ies)

Solubility (water)	Slightly soluble
Partition coefficient (n-octanol/water)	Not available.

Auto-ignition temperature	Not available.
Decomposition temperature	527 °F (275 °C)
Viscosity	Not available.

Other information

Bulk density	0.5 - 0.9 g/ml
Explosive limit	Non-explosive.

10. Stability and reactivity

Reactivity	Greatly increases the burning rate of combustible materials.
Chemical stability	Decomposes on heating. Product may be unstable at temperatures above: 275°C/527°F.
Possibility of hazardous reactions	Reacts slowly with water.
Conditions to avoid	Heat. Moisture. Avoid temperatures exceeding the decomposition temperature. Contact with incompatible materials.
Incompatible materials	Acids. Bases. Salts of heavy metals. Reducing agents. Combustible material.
Hazardous decomposition products	Oxygen. Hydrogen peroxide (H2O2). Steam. Heat.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Dust may irritate respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye damage.
Ingestion	Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. Dusts may irritate the respiratory tract, skin and eyes. Skin irritation. May cause redness and pain.
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Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Calcium hydroxide (CAS 1305-62-0)		
Acute		
<i>Oral</i>		
LD50	Rat	7340 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Respiratory or skin sensitization		
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.	
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Not listed.		
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Not classified.	
Aspiration hazard	Due to the physical form of the product it is not expected to be an aspiration hazard.	
Chronic effects	Prolonged inhalation may be harmful.	

12. Ecological information

Ecotoxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components	Species	Test Results
Calcium hydroxide (CAS 1305-62-0)		
Aquatic		
Fish	LC50 Zambezi barbel (<i>Clarias gariepinus</i>)	33.8844 mg/l, 96 hours
Persistence and degradability	Decomposes in the presence of water. The product contains inorganic compounds which are not biodegradable.	
Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating.	
Mobility in soil	This substance has very low solubility in water and low mobility in the environment.	
Other adverse effects	None known.	

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT	
UN number	UN1479
UN proper shipping name	Oxidizing solid, n.o.s. (Calcium hydroxide oxide)

Transport hazard class(es)
Class 5.1
Subsidiary risk -
Label(s) 5.1
Packing group II
Environmental hazards
Marine pollutant No
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions 62, IB8, IP2, IP4, T3, TP33
Packaging exceptions 152
Packaging non bulk 212
Packaging bulk 240

IATA

UN number UN1479
UN proper shipping name Oxidizing solid, n.o.s. (Calcium hydroxide oxide)
Transport hazard class(es)
Class 5.1
Subsidiary risk -
Packing group II
Environmental hazards No
ERG Code 5L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number UN1479
UN proper shipping name OXIDIZING SOLID, N.O.S. (Calcium hydroxide oxide)
Transport hazard class(es)
Class 5.1
Subsidiary risk -
Packing group II
Environmental hazards
Marine pollutant No
EmS F-A, S-Q
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - Yes

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical Yes

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.**US state regulations****US. Massachusetts RTK - Substance List**

Calcium hydroxide (CAS 1305-62-0)

US. New Jersey Worker and Community Right-to-Know Act

Calcium hydroxide (CAS 1305-62-0)

Calcium hydroxide oxide (CAS 682334-66-3)

US. Pennsylvania Worker and Community Right-to-Know Law

Calcium hydroxide (CAS 1305-62-0)

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision**Issue date** 02-April-2015**Revision date** -**Version #** 01**Further information** HMIS® is a registered trade and service mark of the American Coatings Association (ACA).**HMIS® ratings**
Health: 3
Flammability: 0
Physical hazard: 2**NFPA ratings**

Disclaimer

Regenesis cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.