Jessica Phillips
Project Manager
Site Investigation and Remediation

nationalgrid

June 2, 2020

Mr. Gerald Pratt
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Western Remedial Action, 11th Floor
625 Broadway
Albany, New York 12233

Re: Test Pit Investigation for Unknown Structure
National Grid Inwood Former Holder Site
Intersection of Nassau Avenue and Sheridan Blvd
Inwood, Nassau County, New York
Site No. 1-30-121, Order on Consent Index # A2-0552-0606

Dear Mr. Pratt:

The purpose of the letter report is to provide results of the unknown structure investigation undertaken by National Grid at the Inwood Former Holder Site (Site) located in Inwood, Nassau County, New York. National Grid completed a test pit south-east of the former Holder Pad to investigate an unknown structure. The location of the test pit is shown in the attached Figure 1. All work followed the Inwood Site Specific Health and Safety Plan (HASP) and National Grid protocol for Gas Policy Safety. The purpose of the test pit was to inspect a metal structure that was detected during a recent Ground Penetrating Radar (GPR) survey.

The work commenced on Thursday May 14, 2020. Island Pump & Tank (IPT), a National Grid contractor, hand cleared the top 12" of the excavation followed by trenching along the sides of the structure using a backhoe. The metal structure appears to be a former gas distribution steel pipeline with a flange joint exposed to the surface. The pipeline is 36" diameter which bends 90° heading approximately south outside of the vegetation-cleared holder area. The surveyed location of top (exposed) surface of the pipeline is shown in Figure 1. The soil from the excavation was dark gray in color with a combination of odors ranging from light petroleum odors to strong organic peaty odors. However, no significantly elevated Photoionization Detector (PID) readings were identified with a handheld instrument. The peak ambient PID reading was recorded at 1.9 parts per million (ppm), while peak headspace reading was 14.1 ppm. There were no Manufactured Gas Plant (MGP) related impacts (visual or olfactory) observed in the soils.

175 East Old Country Road, Hicksville NY 11801
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Adjacent to the 36" pipeline, two (2) unidentified pipelines were discovered running north to south, as shown in Attachment A (Photolog). One pipeline was found approximately 1 ft below ground surface (bgs) with 2" diameter steel construction. The second pipeline was a 4" diameter cast iron construction found approximately 4 ft bgs underneath and parallel to the steel pipeline. No identifiable impacts were found in the soil surrounding the pipelines. To the south of the 36" pipeline, a concrete slab was found traversing east-west with thickness of at least 4 ft.

The investigation test pit was approximately 14 ft long and 12 ft wide to a depth of 6 feet. Groundwater was encountered at approximately 5.5 ft bgs. Soil removed during the excavation of the test pit was temporarily stored on heavy duty plastic sheeting. Upon completion of the test pit, the excavation was backfilled with removed material in the sequence it was excavated. A composite sample of the excavated soil was collected for laboratory analysis for the following parameters:

- Target Compound List (TCL) Volatile Organic Compounds (VOCs) by United States Environmental Protection Agency (USEPA) SW-846 Method 8260B;
- TCL Semi-Volatile Organic Compounds (SVOCs) by USEPA SW-846 Method 8270C;
- Resource Conservation and Recovery Act (RCRA) 8 Metals by USEPA SW-846 Method 6000-7000 Series; and,
- Free Cyanide by USEPA SW-846 Method 9014;
- TCL Pesticides by USEPA SW-846 Method 8081B; and
- TCL Polychlorinated Biphenyls (PCBs) by USEPA SW-846 Method 8082A.

The results of the analytical sample are included in Table 1. The soil results are compared to the Commercial Use Soil Cleanup Objectives (SCOs) provided in the document entitled "*NYSDEC Rules and Regulations, 6 NYCRR Subpart 375-6, Remedial Program Soil Cleanup Objectives*", dated December 14, 2006 [NYSDEC, 2006a]. Where a result is greater than the method reporting limit, the result is shown with a bold font. No analytes were found in exceedance of the SCOs. The sampling results are reported following the procedures of the Quality Assurance Project Plan (QAPP) from the NYSDEC-approved Remedial Investigation (RI) workplan. The lab sheets are included in Attachment B, along with AECOM's Data Usability Summary Report (DUSR) in Attachment C.

All soil activities were conducted in accordance with the methods, procedures, and documents presented in the NYSDEC-approved RI Work Plan and the Interim Site Management Plan (ISMP) by OSHA 40-hour trained staff who are enrolled in a medical monitoring program. The Community Air Monitoring Plan, as described in the ISMP, was implemented during intrusive activities.

Recommendations / Path Forward

Additional activities are planned for the Site to identify and trace unknown structures limited to the area of disturbance by Gas Operations infrastructure work including:

- Tracing of the three pipelines uncovered during test pit activities, using inductive or conductive signal tracing;
- Use of GPR or Magnetometer to identify any unknown structures within the alignment of the Gas Operations infrastructure work;
- Targeted investigation of unknown structures detected during the GPR/ magnetometer investigation limited to the alignment of the infrastructure work.

It is expected that the work would be completed in the next couple of weeks, and a summary of the work will be shared with the NYSDEC.

If you have any questions or comments about the activities mentioned in this letter, please contact me by telephone at (516) 581-7313 or via email at Jessica.phillips@nationalgrid.com.

Sincerely,

Jessica Phillips

Jessica Phillips
Project Manager

Attachments

Table 1: Excavation Investigation Soil Analytical Results
Figure 1: Location of Field Activities
Attachment A: Photolog of Investigation Activities
Attachment B: Analytical Lab Sheets
Attachment C: Data Usability Summary Report

cc: D. Hettrick, NYSDOH (Electronic Copy Only)
S. Aldridge, National Grid (Electronic Copy Only)
A. Kushnir, National Grid (Electronic Copy Only)
S. Pandya, AECOM (Electronic Copy Only)
S. Mantri, AECOM (Electronic Copy Only)
P. Cox, AECOM (Electronic Copy Only)

Table

Table 1
Excavation Investigation Soil Analytical Results
National Grid Inwood Former Holder Site
Inwood, NY

Location ID Sample ID Sample Date Depth Interval	CAS Number	NYSDEC Part 375-6 Commercial Soil Cleanup Objectives[1]	EXC-01 5/19/2020 EXC_01_051920 4602091991
BTEX (mg/kg)			
Benzene	71-43-2	44	< 0.0012 U
Ethylbenzene	100-41-4	390	< 0.0012 U
m+p-Xylene	1330-20-7-M,P	500	< 0.0012 U
o-Xylene	95-47-6	500	< 0.0012 U
Toluene	108-88-3	500	< 0.0012 U
Total BTEX		*NL*	< 0.0012 U
VOCs (mg/kg)			
1,1,1-Trichloroethane	71-55-6	500	< 0.0012 U
1,1,2,2-Tetrachloroethane	79-34-5	NL	< 0.0012 U
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NL	< 0.0012 U
1,1,2-Trichloroethane	79-00-5	NL	< 0.0012 U
1,1-Dichloroethane	75-34-3	240	< 0.0012 U
1,1-Dichloroethene	75-35-4	500	< 0.0012 U
1,2,3-Trichlorobenzene	87-61-6	NL	< 0.0012 U
1,2,4-Trichlorobenzene	120-82-1	NL	< 0.0012 U
1,2-Dibromo-3-chloropropane	96-12-8	NL	< 0.0012 U
1,2-Dibromoethane	106-93-4	NL	< 0.0012 U
1,2-Dichlorobenzene	95-50-1	500	< 0.0012 U
1,2-Dichloroethane	107-06-2	30	< 0.0012 U
1,2-Dichloropropane	78-87-5	NL	< 0.0012 U
1,3-Dichlorobenzene	541-73-1	280	< 0.0012 U
1,4-Dichlorobenzene	106-46-7	130	< 0.0012 U
1,4-Dioxane	123-91-1	130	< 0.024 U
2-Butanone	78-93-3	500	< 0.0059 U
2-Hexanone	591-78-6	NL	< 0.0059 U
4-Methyl-2-pentanone	108-10-1	NL	< 0.0059 U
Acetone	67-64-1	500	< 0.0071 U
Bromochloromethane	74-97-5	NL	< 0.0012 U
Bromodichloromethane	75-27-4	NL	< 0.0012 U
Bromoform	75-25-2	NL	< 0.0012 U
Bromomethane	74-83-9	NL	< 0.0012 U
Carbon disulfide	75-15-0	NL	**0.0019**
Carbon tetrachloride	56-23-5	22	< 0.0012 U
Chlorobenzene	108-90-7	500	< 0.0012 U
Chloroethane	75-00-3	NL	< 0.0012 UJ
Chloroform	67-66-3	350	< 0.0012 U
Chloromethane	74-87-3	NL	< 0.0012 U
cis-1,2-Dichloroethene	156-59-2	500	< 0.0012 U
cis-1,3-Dichloropropene	10061-01-5	NL	< 0.0012 U
Cyclohexane	110-82-7	NL	< 0.0012 U
Dibromochloromethane	124-48-1	NL	< 0.0012 U
Dichlorodifluoromethane	75-71-8	NL	< 0.0012 U
Isopropylbenzene	98-82-8	NL	< 0.0012 U
Methyl acetate	79-20-9	NL	< 0.0059 U
Methyl tert-butyl ether	1634-04-4	500	< 0.0012 U
Methylcyclohexane	108-87-2	NL	< 0.0012 U
Methylene chloride	75-09-2	NL	< 0.0012 U
Styrene	100-42-5	NL	< 0.0012 U
Tetrachloroethene	127-18-4	150	< 0.0012 U
trans-1,2-Dichloroethene	156-60-5	500	< 0.0012 U
trans-1,3-Dichloropropene	10061-02-6	NL	< 0.0012 U
Trichloroethene	79-01-6	NL	< 0.0012 U
Trichlorofluoromethane	75-69-4	NL	< 0.0012 U
Vinyl chloride	75-01-4	NL	< 0.0012 U

Table 1
Excavation Investigation Soil Analytical Results
National Grid Inwood Former Holder Site
Inwood, NY

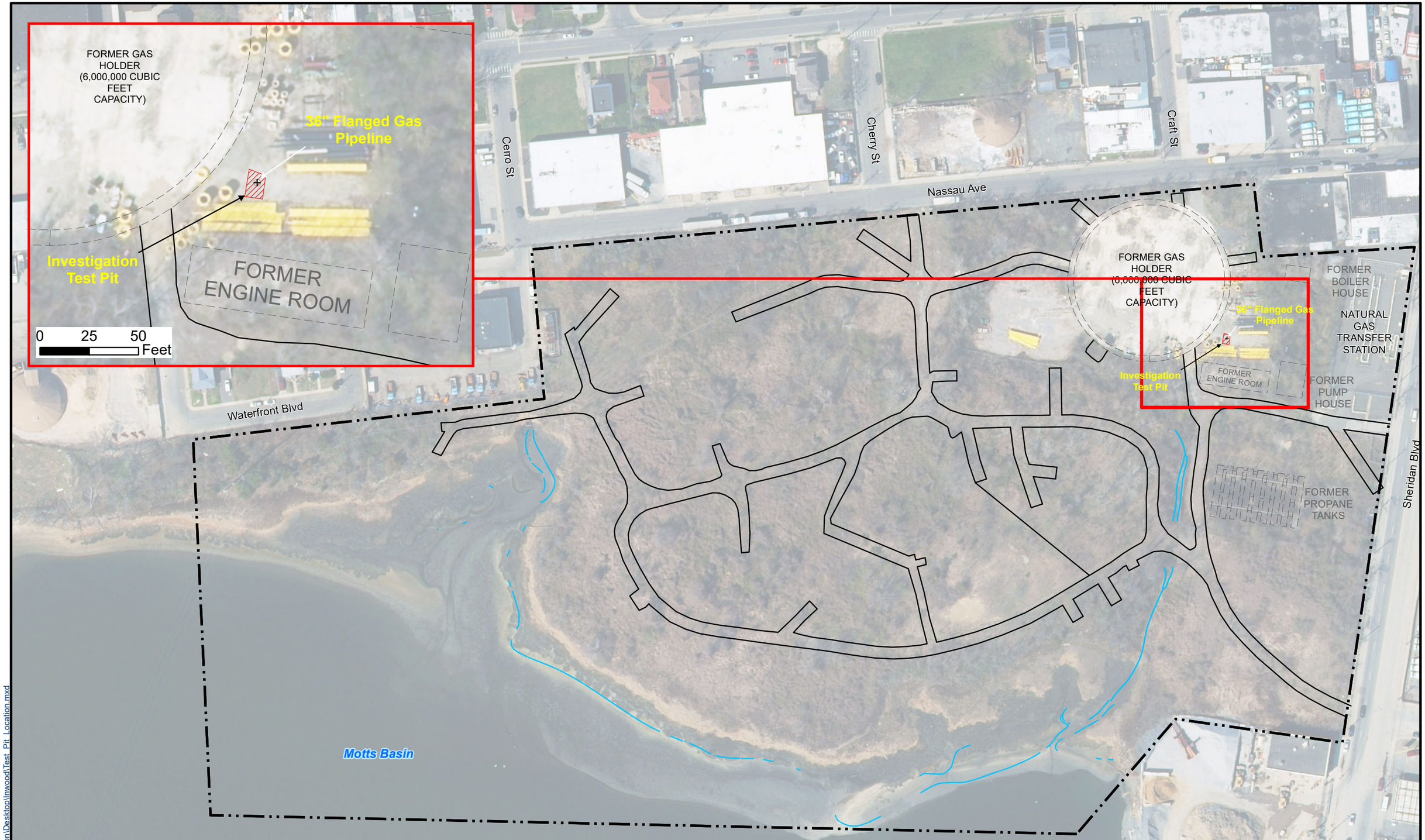
Location ID Sample ID Sample Date Depth Interval	CAS Number	NYSDEC Part 375-6 Commercial Soil Cleanup Objectives[1]	EXC-01 5/19/2020 EXC_01_051920 4602091991
PAHs (mg/kg)			
2-Methylnaphthalene	91-57-6	NL	**0.019 J**
Acenaphthene	83-32-9	500	**0.039 J**
Acenaphthylene	208-96-8	500	< 0.43 U
Anthracene	120-12-7	500	**0.11 J**
Benzo(a)anthracene	56-55-3	5.6	**0.33**
Benzo(a)pyrene	50-32-8	1	**0.27**
Benzo(b)fluoranthene	205-99-2	5.6	**0.38**
Benzo(ghi)perylene	191-24-2	500	**0.1 J**
Benzo(k)fluoranthene	207-08-9	56	**0.15**
Chrysene	218-01-9	56	**0.33 J**
Dibenz(a,h)anthracene	53-70-3	0.56	< 0.043 U
Fluoranthene	206-44-0	500	**0.68**
Fluorene	86-73-7	500	**0.028 J**
Indeno(1,2,3-cd)pyrene	193-39-5	5.6	**0.13**
Naphthalene	91-20-3	500	< 0.43 U
Phenanthrene	85-01-8	NL	**0.34 J**
Pyrene	129-00-0	500	**0.61**
SVOCs (mg/kg)			
1,1'-Biphenyl	92-52-4	NL	< 0.43 U
1,2,4,5-Tetrachlorobenzene	95-94-3	NL	< 0.43 U
2,2'-oxybis(1-Chloropropane)	108-60-1	NL	< 0.43 U
2,3,4,6-Tetrachlorophenol	58-90-2	NL	< 0.43 U
2,4,5-Trichlorophenol	95-95-4	NL	< 0.43 U
2,4,6-Trichlorophenol	88-06-2	NL	< 0.17 U
2,4-Dichlorophenol	120-83-2	NL	< 0.17 U
2,4-Dimethylphenol	105-67-9	NL	< 0.43 U
2,4-Dinitrophenol	51-28-5	NL	< 0.35 U
2,4-Dinitrotoluene	121-14-2	NL	< 0.087 U
2,6-Dinitrotoluene	606-20-2	NL	< 0.087 U
2-Chloronaphthalene	91-58-7	NL	< 0.43 U
2-Chlorophenol	95-57-8	NL	< 0.43 U
2-Methylphenol	95-48-7	500	< 0.43 U
2-Nitroaniline	88-74-4	NL	< 0.43 U
2-Nitrophenol	88-75-5	NL	< 0.43 U
3,3'-Dichlorobenzidine	91-94-1	NL	< 0.17 U
3-Nitroaniline	99-09-2	NL	< 0.43 U
4,6-Dinitro-2-methylphenol	534-52-1	NL	< 0.35 U
4-Bromophenyl phenyl ether	101-55-3	NL	< 0.43 U
4-Chloro-3-methylphenol	59-50-7	NL	< 0.43 U
4-Chloroaniline	106-47-8	NL	< 0.43 UJ
4-Chlorophenyl phenyl ether	7005-72-3	NL	< 0.43 U
4-Methylphenol	106-44-5	500	< 0.43 U
4-Nitroaniline	100-01-6	NL	< 0.43 U
4-Nitrophenol	100-02-7	NL	< 0.87 U
Acetophenone	98-86-2	NL	< 0.43 U
Atrazine	1912-24-9	NL	< 0.17 U
Benzaldehyde	100-52-7	NL	< 0.43 UJ
bis(2-Chloroethoxy)methane	111-91-1	NL	< 0.43 U
bis(2-Chloroethyl) ether	111-44-4	NL	< 0.043 U
bis(2-Ethylhexyl) phthalate	117-81-7	NL	< 0.43 U
Butyl benzyl phthalate	85-68-7	NL	< 0.43 U
Caprolactam	105-60-2	NL	< 0.43 U
Carbazole	86-74-8	NL	**0.052 J**
Dibenzofuran	132-64-9	350	**0.018 J**
Diethyl phthalate	131-11-3	NL	< 0.43 U
Dimethyl phthalate	84-66-2	NL	< 0.43 U
Di-n-butyl phthalate	84-74-2	NL	< 0.43 U
Di-n-octyl phthalate	117-84-0	NL	< 0.43 U
Hexachlorobenzene	118-74-1	6	< 0.043 U
Hexachlorobutadiene	87-68-3	NL	< 0.087 U
Hexachlorocyclopentadiene	77-47-4	NL	< 0.43 U
Hexachloroethane	67-72-1	NL	< 0.043 U
Isophorone	78-59-1	NL	< 0.17 U
Nitrobenzene	98-95-3	NL	< 0.043 U
N-Nitrosodi-n-propylamine	621-64-7	NL	< 0.043 U
N-Nitrosodiphenylamine	86-30-6	NL	< 0.43 U
Pentachlorophenol	87-86-5	6.7	< 0.35 U
Phenol	108-95-2	500	< 0.43 U

Table 1
Excavation Investigation Soil Analytical Results
National Grid Inwood Former Holder Site
Inwood, NY

Location ID Sample ID Sample Date Depth Interval	CAS Number	NYSDEC Part 375-6 Commercial Soil Cleanup Objectives[1]	EXC-01 5/19/2020 EXC_01_051920 4602091991
Metals (mg/kg)			
Arsenic	7440-38-2	16	**9.4**
Barium	7440-39-3	400	**32.8 J**
Cadmium	7440-43-9	9.3	**0.16 J**
Chromium	7440-47-3	NL	**19.9**
Lead	7439-92-1	1000	**43.2**
Mercury	7439-97-6	2.8	**0.014 J**
Selenium	7782-49-2	1500	< 4.9 U
Silver	7440-22-4	1500	< 2.5 U
Cyanide (mg/kg)			
Cyanide, Free	57-12-5	NL	< 1.4 U
PCBs (mg/kg)			
Aroclor 1016	12674-11-2	NL	< 0.087 U
Aroclor 1221	11104-28-2	NL	< 0.087 U
Aroclor 1232	11141-16-5	NL	< 0.087 U
Aroclor 1242	53469-21-9	NL	< 0.087 U
Aroclor 1248	12672-29-6	NL	< 0.087 U
Aroclor 1254	11097-69-1	NL	< 0.087 U
Aroclor 1260	11096-82-5	NL	< 0.087 U
Aroclor 1262	37324-23-5	NL	< 0.087 U
Aroclor 1268	11100-14-4	NL	< 0.087 U
PCB (Total) (ppm)	CALC-PCBs	1	< 0.087 U
Pesticides (mg/kg)			
Pesticides (Total) (ppm)		NL	< 0.0087 U
Aldrin	309-00-2	0.68	< 0.0087 U
Alpha-BHC	319-84-6	3.4	< 0.0026 U
Beta-BHC	319-85-7	3	< 0.0026 U
Chlordane	5103-71-9	NL	< 0.087 U
DDD,4,4-	72-54-8	92	< 0.0087 U
DDE,4,4-	72-55-9	62	< 0.0087 U
DDT,4,4-	50-29-3	47	< 0.0087 U
Delta-BHC	319-86-8	500	< 0.0026 U
Dieldrin	60-57-1	1.4	< 0.0026 U
Endosulfan I	959-98-8	200	< 0.0087 U
Endosulfan II	33213-65-9	200	< 0.0087 U
Endosulfan sulfate	1031-07-8	200	< 0.0087 U
Endrin	72-20-8	89	< 0.0087 U
Endrin aldehyde	7421-93-4	NL	< 0.0087 U

Notes:
[1] New York State Department of Environmental - Environmental Remediation Programs Part 375-6.8(b) Commercial Use Soil Cleanup Objective Value
J = The associated numerical value is an estimated quantity
U = The material was analyzed for but not detected at, or above, the reporting
< = Nondetected result
BTEX = Benzene, Toluene, Ethylbenzene, Xylene
PAH = Polycyclic Aromatic Hydrocarbons
mg/kg - Micrograms per Kilograms
Bold indicates the analyte detected at a concentration greater than the MDL.
NL = Not Listed

Figure



AECOM

Legend

- Property Boundary
- Access Road
- Historic Structures
- Waterfront

1 inch = 120 feet

0 60 120 240 Feet

N

National Grid Former Inwood Gas Holder Site Nassau Ave/Sheridan Blvd Inwood, NY			Test Pit Location	
Date: 5/29/2020	Drawn: HO	Job #: 60137359		Figure 1

File: C:\Users\henryorrison\Desktop\Inwood\Test_Pit_Location.mxd

Attachments

Attachment A
Photolog of Investigation Activities

PHOTOGRAPH LOG

Facility Name:	Site Location:	Project No.
Former Inwood Gas Holder Site	Nassau Ave. & Sheridan Blvd., Inwood New York	60137359

Photo No.	Date:
1	05/14/20

Direction Photo Taken:

Southeast

Description:

A 36” dia flanged pipeline with top exposed to the surface.

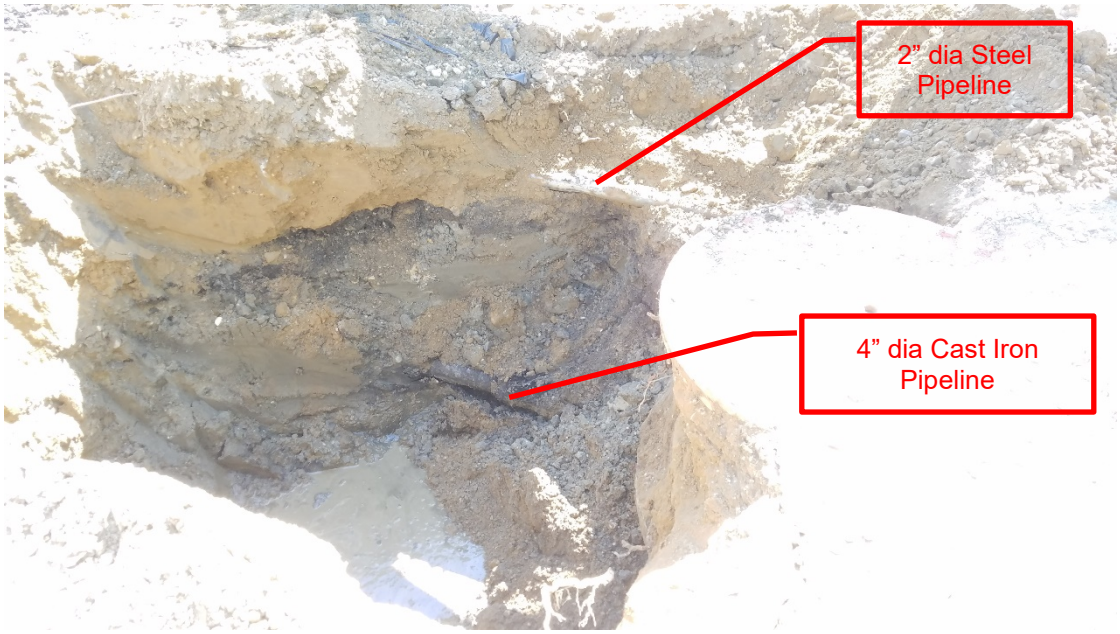
Photo No.	Date:
2	05/14/20

Direction Photo Taken:

East

Description:

Two unidentified pipelines laying adjacent (east) to the assumed former gas line.



PHOTOGRAPH LOG

Facility Name:	Site Location:	Project No.
Former Inwood Gas Holder Site	Nassau Ave. & Sheridan Blvd., Inwood New York	60137359

Photo No.	Date:
3	05/14/20

Direction Photo Taken:

Northeast

Description:

Side profile of the pipeline.

Photo No.	Date:
4	05/14/20

Direction Photo Taken:

South

Description:

Concrete wall approx. 4 ft thick south of the pipeline.

PHOTOGRAPH LOG

Facility Name:	Site Location:	Project No.
Former Inwood Gas Holder Site	Nassau Ave. & Sheridan Blvd., Inwood New York	60137359

Photo No.	Date:
5	05/14/20

Direction Photo Taken:

Northeast

Description:

Backfilling the excavation.

Photo No.	Date:
6	05/14/20

Direction Photo Taken:

Northeast

Description:

Excavation pit backfilled to grade

Attachment B
Analytical Lab Sheets

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ANALYTICAL REPORT

Job Number: 460-209199-1

Job Description: NATIONAL GRID - INWOOD

For:
AECOM
Rusten Corporate Park
100 Red Schoolhouse Road
Suite B-1
Chestnut Ridge, NY 10977-6715

Attention: Mr. Shreyas Mantri

Approved for release.
Julie L Gilmore
Project Manager I
5/26/2020 8:54 AM

Julie L Gilmore, Project Manager I
777 New Durham Road, Edison, NJ, 08817
(484)685-0865
julie.gilmore@testamericainc.com
05/26/2020

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the Eurofins TestAmerica Edison Project Manager.

Eurofins TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

CASE NARRATIVE

Client: AECOM

Project: NATIONAL GRID - INWOOD

Report Number: 460-209199-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 05/19/2020; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.9 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Sample EXC_01_051920 (460-209199-1) was analyzed for Volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260C. The samples were prepared on 05/20/2020 and analyzed on 05/21/2020.

The continuing calibration verification (CCV) analyzed in batch 460-695965 was outside the method criteria for the following analyte(s): Dichlorodifluoromethane. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No difficulties were encountered during the volatiles analysis.

All quality control parameters were within the acceptance limits.

PESTICIDES
Sample EXC_01_051920 (460-209199-1) was analyzed for Pesticides in accordance with EPA SW-846 Methods 8081B. The samples were prepared on 05/21/2020 and analyzed on 05/22/2020.

The DCB Decachlorobiphenyl surrogate recovery for the following samples was outside acceptance limits (high biased) on the column due to matrix interference: EXC_01_051920 (460-209199-1). The recovery is within acceptance limits on the other column, indicating that the extraction process was in control.

Endrin aldehyde failed the recovery criteria low for the MS of sample 460-209218-2 in batch 460-696290.

Endrin aldehyde failed the recovery criteria low for the MSD of sample 460-209218-2 in batch 460-696290.

Refer to the QC report for details.

No other difficulties were encountered during the Pesticides analysis.

All other quality control parameters were within the acceptance limits.

POLYCHLORINATED BIPHENYLS
Sample EXC_01_051920 (460-209199-1) was analyzed for polychlorinated biphenyls in accordance with EPA SW-846 Method 8082A. The samples were prepared on 05/21/2020 and analyzed on 05/22/2020.

No difficulties were encountered during the PCBs analysis.

All quality control parameters were within the acceptance limits.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)
Sample EXC_01_051920 (460-209199-1) was analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270D. The samples were prepared on 05/20/2020 and analyzed on 05/21/2020.

The continuing calibration verification (CCV) analyzed in batch 460-695998 was outside the method criteria for the following analyte(s): 2,2'-oxybis[1-chloropropane], Hexachlorocyclopentadiene, Pentachlorophenol and Benzaldehyde. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 460-695949 and analytical batch 460-695998 recovered outside control limits for the following analytes: 2,2'-oxybis[1-chloropropane]. This analyte was biased high in the LCS/LCSD and was not detected in the associated samples; therefore, the data have been reported.

A full list spike was utilized for this method. Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits due to poor performance. The LCS associated with batch 460-695949 had (4-Chloroaniline) outside control limits; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

The continuing calibration verification (CCV) analyzed in batch 460-696064 was outside the method criteria for the following analyte(s): Benzaldehyde. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Phenol-d5 (Surr) failed the surrogate recovery criteria high for 460-208870-E-8-C MSD. Refer to the QC report for details.

4-Chloroaniline failed the recovery criteria low for LCS 460-695949/2-A. 2,2'-oxybis[1-chloropropane] failed the recovery criteria high. 2,2'-oxybis[1-chloropropane] failed the recovery criteria high for LCSD 460-695949/3-A. Refer to the QC report for details.

Several analytes failed the recovery criteria low for the MS/MSD of sample 460-208870-8 in batch 460-695998.

Refer to the QC report for details.

No other difficulties were encountered during the semivolatiles analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP)
Sample EXC_01_051920 (460-209199-1) was analyzed for Total Metals (ICP) in accordance with EPA SW-846 Methods 6010D. The samples were prepared and analyzed on 05/20/2020.

For the duplicate of sample 460-209228-2. Refer to the QC report for details.

No other difficulties were encountered during the Total Metals (ICP) analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY
Sample EXC_01_051920 (460-209199-1) was analyzed for total mercury in accordance with EPA SW-846 Method 7471B. The samples were prepared and analyzed on 05/21/2020.

No difficulties were encountered during the Hg analysis.

All quality control parameters were within the acceptance limits.

FREE CYANIDE
Sample EXC_01_051920 (460-209199-1) was analyzed for Free Cyanide in accordance with EPA SW-846 Method 9016. The samples were leached on 05/23/2020, and prepared and analyzed on 05/24/2020.

No difficulties were encountered during the Free Cyanide analysis.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS/PERCENT MOISTURE
Sample EXC_01_051920 (460-209199-1) was analyzed for percent solids/percent moisture in accordance with EPA Method CLPISM01.2 (Exhibit D) Modified. The samples were analyzed on 05/20/2020.

No difficulties were encountered during the %solids/moisture analysis.

All quality control parameters were within the acceptance limits.

Sample Summary

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
460-209199-1	EXC_01_051920	Solid	05/19/20 07:00	05/19/20 17:30	

Detection Summary

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

Client Sample ID: EXC_01_051920

Lab Sample ID: 460-209199-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	1.9		1.2	0.32	ug/Kg	1	☼	8260C	Total/NA
2-Methylnaphthalene	19	J	430	12	ug/Kg	1	☼	8270D	Total/NA
Acenaphthene	39	J	430	31	ug/Kg	1	☼	8270D	Total/NA
Anthracene	110	J	430	13	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]anthracene	330		43	15	ug/Kg	1	☼	8270D	Total/NA
Benzo[a]pyrene	270		43	11	ug/Kg	1	☼	8270D	Total/NA
Benzo[b]fluoranthene	380		43	11	ug/Kg	1	☼	8270D	Total/NA
Benzo[g,h,i]perylene	100	J	430	13	ug/Kg	1	☼	8270D	Total/NA
Benzo[k]fluoranthene	150		43	8.5	ug/Kg	1	☼	8270D	Total/NA
Carbazole	52	J	430	16	ug/Kg	1	☼	8270D	Total/NA
Chrysene	330	J	430	7.3	ug/Kg	1	☼	8270D	Total/NA
Dibenzofuran	18	J	430	6.1	ug/Kg	1	☼	8270D	Total/NA
Fluoranthene	680		430	15	ug/Kg	1	☼	8270D	Total/NA
Fluorene	28	J	430	5.9	ug/Kg	1	☼	8270D	Total/NA
Indeno[1,2,3-cd]pyrene	130		43	17	ug/Kg	1	☼	8270D	Total/NA
Phenanthrene	340	J	430	7.6	ug/Kg	1	☼	8270D	Total/NA
Pyrene	610		430	11	ug/Kg	1	☼	8270D	Total/NA
Arsenic	9.4		3.7	0.76	mg/Kg	2	☼	6010D	Total/NA
Barium	32.8	J	49.2	4.7	mg/Kg	2	☼	6010D	Total/NA
Cadmium	0.16	J	0.98	0.085	mg/Kg	2	☼	6010D	Total/NA
Chromium	19.9		2.5	1.7	mg/Kg	2	☼	6010D	Total/NA
Lead	43.2		2.5	0.40	mg/Kg	2	☼	6010D	Total/NA
Mercury	0.014	J	0.020	0.0047	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Method Summary

Client: AECOM
Job ID: 460-209199-1
Project/Site: NATIONAL GRID - INWOOD

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL EDI
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL EDI
8081B	Organochlorine Pesticides (GC)	SW846	TAL EDI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL EDI
6010D	Metals (ICP)	SW846	TAL EDI
7471B	Mercury (CVAA)	SW846	TAL EDI
9016	Cyanide, Free	SW846	TAL EDI
Moisture	Percent Moisture	EPA	TAL EDI
3050B	Preparation, Metals	SW846	TAL EDI
3546	Microwave Extraction	SW846	TAL EDI
5035	Closed System Purge and Trap	SW846	TAL EDI
7471B	Preparation, Mercury	SW846	TAL EDI
9016	Cyanide, Preparation	SW846	TAL EDI
9016	Cyanide Extraction (Solids and Oils)	SW846	TAL EDI

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Client Sample Results

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

Client Sample ID: EXC_01_051920

Date Collected: 05/19/20 07:00
Date Received: 05/19/20 17:30

Lab Sample ID: 460-209199-1

Matrix: Solid
Percent Solids: 76.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.2	0.28	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,1,2,2-Tetrachloroethane	0.25	U	1.2	0.25	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.2	0.36	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,1,2-Trichloroethane	0.21	U	1.2	0.21	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,1-Dichloroethane	0.25	U	1.2	0.25	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,1-Dichloroethene	0.27	U	1.2	0.27	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,2,3-Trichlorobenzene	0.22	U	1.2	0.22	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,2,4-Trichlorobenzene	0.43	U	1.2	0.43	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,2-Dichloropropane	0.50	U	1.2	0.50	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,3-Dichlorobenzene	0.19	U	1.2	0.19	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,4-Dichlorobenzene	0.27	U	1.2	0.27	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,4-Dioxane	11	U	24	11	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
2-Butanone (MEK)	3.2	U	5.9	3.2	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
2-Hexanone	2.0	U	5.9	2.0	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
4-Methyl-2-pentanone (MIBK)	1.8	U	5.9	1.8	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Acetone	6.8	U	7.1	6.8	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Benzene	0.31	U	1.2	0.31	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Bromoform	0.51	U	1.2	0.51	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Bromomethane	0.56	U	1.2	0.56	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Carbon disulfide	**1.9**		1.2	0.32	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Carbon tetrachloride	0.46	U	1.2	0.46	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Chlorobenzene	0.21	U	1.2	0.21	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Chlorobromomethane	0.33	U	1.2	0.33	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Chlorodibromomethane	0.23	U	1.2	0.23	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Chloroethane	0.62	U	1.2	0.62	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Chloroform	0.38	U	1.2	0.38	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Chloromethane	0.52	U	1.2	0.52	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
cis-1,2-Dichloroethene	0.18	U	1.2	0.18	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
cis-1,3-Dichloropropene	0.32	U	1.2	0.32	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Cyclohexane	0.26	U	1.2	0.26	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Dichlorobromomethane	0.31	U	1.2	0.31	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Dichlorodifluoromethane	0.40	U	1.2	0.40	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Ethylbenzene	0.24	U	1.2	0.24	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Ethylene Dibromide	0.21	U	1.2	0.21	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Isopropylbenzene	0.15	U	1.2	0.15	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Methyl acetate	5.1	U	5.9	5.1	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Methyl tert-butyl ether	0.15	U	1.2	0.15	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Methylcyclohexane	0.59	U	1.2	0.59	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Methylene Chloride	0.55	U	1.2	0.55	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
m-Xylene & p-Xylene	0.21	U	1.2	0.21	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
o-Xylene	0.23	U	1.2	0.23	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Styrene	0.33	U	1.2	0.33	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Tetrachloroethene	0.17	U	1.2	0.17	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Toluene	0.28	U	1.2	0.28	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
trans-1,2-Dichloroethene	0.29	U	1.2	0.29	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
trans-1,3-Dichloropropene	0.32	U	1.2	0.32	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Trichloroethene	0.17	U	1.2	0.17	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Trichlorofluoromethane	0.48	U	1.2	0.48	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Vinyl chloride	0.65	U	1.2	0.65	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1

Client Sample ID: EXC_01_051920

Date Collected: 05/19/20 07:00
Date Received: 05/19/20 17:30

Lab Sample ID: 460-209199-1

Matrix: Solid
Percent Solids: 76.7

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.35	U	1.2	0.35	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,2-Dichlorobenzene	0.17	U	1.2	0.17	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,2-Dibromo-3-Chloropropane	0.55	U	1.2	0.55	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 145*	*05/20/20 08:36*	*05/21/20 22:05*	*1*
4-Bromofluorobenzene	*102*		*79 - 125*	*05/20/20 08:36*	*05/21/20 22:05*	*1*
Dibromofluoromethane (Surr)	*109*		*48 - 150*	*05/20/20 08:36*	*05/21/20 22:05*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*	*05/20/20 08:36*	*05/21/20 22:05*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	5.7	U	430	5.7	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
1,2,4,5-Tetrachlorobenzene	13	U	430	13	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,2'-oxybis[1-chloropropane]	7.8	U *	430	7.8	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,3,4,6-Tetrachlorophenol	29	U	430	29	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,4,5-Trichlorophenol	44	U	430	44	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,4,6-Trichlorophenol	55	U	170	55	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,4-Dichlorophenol	28	U	170	28	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,4-Dimethylphenol	19	U	430	19	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,4-Dinitrophenol	210	U	350	210	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,4-Dinitrotoluene	46	U	87	46	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,6-Dinitrotoluene	31	U	87	31	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2-Chloronaphthalene	20	U	430	20	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2-Chlorophenol	15	U	430	15	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2-Methylnaphthalene	**19**	**J**	430	12	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2-Methylphenol	16	U	430	16	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2-Nitroaniline	16	U	430	16	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2-Nitrophenol	43	U	430	43	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
3,3'-Dichlorobenzidine	65	U	170	65	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
3-Nitroaniline	49	U	430	49	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4,6-Dinitro-2-methylphenol	70	U	350	70	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Bromophenyl phenyl ether	17	U	430	17	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Chloro-3-methylphenol	24	U	430	24	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Chloroaniline	30	U *	430	30	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Chlorophenyl phenyl ether	15	U	430	15	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Methylphenol	27	U	430	27	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Nitroaniline	50	U	430	50	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Nitrophenol	70	U	870	70	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Acenaphthene	**39**	**J**	430	31	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Acenaphthylene	4.5	U	430	4.5	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Acetophenone	21	U	430	21	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Anthracene	**110**	**J**	430	13	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Atrazine	11	U	170	11	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Benzaldehyde	19	U	430	19	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Benzo[a]anthracene	**330**		43	15	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Benzo[a]pyrene	**270**		43	11	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Benzo[b]fluoranthene	**380**		43	11	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Benzo[g,h,i]perylene	**100**	**J**	430	13	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Benzo[k]fluoranthene	**150**		43	8.5	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1

Client Sample ID: EXC_01_051920
Lab Sample ID: 460-209199-1

Date Collected: 05/19/20 07:00
Matrix: Solid
Date Received: 05/19/20 17:30
Percent Solids: 76.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	34	U	430	34	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Bis(2-chloroethyl)ether	15	U	43	15	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Bis(2-ethylhexyl) phthalate	23	U	430	23	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Butyl benzyl phthalate	20	U	430	20	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Caprolactam	67	U	430	67	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Carbazole	**52**	**J**	430	16	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Chrysene	**330**	**J**	430	7.3	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Dibenz(a,h)anthracene	19	U	43	19	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Dibenzofuran	**18**	**J**	430	6.1	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Diethyl phthalate	6.2	U	430	6.2	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Dimethyl phthalate	98	U	430	98	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Di-n-butyl phthalate	76	U	430	76	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Di-n-octyl phthalate	23	U	430	23	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Fluoranthene	**680**		430	15	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Fluorene	**28**	**J**	430	5.9	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Hexachlorobenzene	20	U	43	20	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Hexachlorobutadiene	9.2	U	87	9.2	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Hexachlorocyclopentadiene	38	U	430	38	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Hexachloroethane	15	U	43	15	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Indeno[1,2,3-cd]pyrene	**130**		43	17	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Isophorone	120	U	170	120	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Naphthalene	7.5	U	430	7.5	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Nitrobenzene	10	U	43	10	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
N-Nitrosodi-n-propylamine	31	U	43	31	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
N-Nitrosodiphenylamine	8.3	U	430	8.3	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Pentachlorophenol	88	U	350	88	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Phenanthrene	**340**	**J**	430	7.6	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Phenol	16	U	430	16	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Pyrene	**610**		430	11	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*55*		*10 - 123*	*05/20/20 17:45*	*05/21/20 17:58*	*1*
2-Fluorobiphenyl	*50*		*25 - 104*	*05/20/20 17:45*	*05/21/20 17:58*	*1*
2-Fluorophenol (Surr)	*51*		*18 - 106*	*05/20/20 17:45*	*05/21/20 17:58*	*1*
Nitrobenzene-d5 (Surr)	*49*		*19 - 105*	*05/20/20 17:45*	*05/21/20 17:58*	*1*
Phenol-d5 (Surr)	*48*		*26 - 101*	*05/20/20 17:45*	*05/21/20 17:58*	*1*
Terphenyl-d14 (Surr)	*63*		*25 - 127*	*05/20/20 17:45*	*05/21/20 17:58*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	1.5	U	8.7	1.5	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
4,4'-DDE	1.0	U	8.7	1.0	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
4,4'-DDT	1.6	U	8.7	1.6	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Aldrin	1.3	U	8.7	1.3	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
alpha-BHC	0.89	U	2.6	0.89	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
beta-BHC	0.98	U	2.6	0.98	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Chlordane (technical)	21	U	87	21	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
delta-BHC	0.53	U	2.6	0.53	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Dieldrin	1.1	U	2.6	1.1	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Endosulfan I	1.3	U	8.7	1.3	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1

Client Sample Results

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

Client Sample ID: EXC_01_051920

Date Collected: 05/19/20 07:00
Date Received: 05/19/20 17:30

Lab Sample ID: 460-209199-1

Matrix: Solid
Percent Solids: 76.7

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	2.2	U	8.7	2.2	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Endosulfan sulfate	1.1	U	8.7	1.1	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Endrin	1.3	U	8.7	1.3	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Endrin aldehyde	2.1	U	8.7	2.1	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Endrin ketone	1.7	U	8.7	1.7	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
gamma-BHC (Lindane)	0.81	U	2.6	0.81	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Heptachlor	1.0	U	8.7	1.0	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Heptachlor epoxide	1.3	U	8.7	1.3	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Methoxychlor	2.0	U	8.7	2.0	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Toxaphene	32	U	87	32	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*1057*	*X*	*28 - 148*	*05/21/20 10:17*	*05/22/20 05:23*	*1*
DCB Decachlorobiphenyl	*49*		*28 - 148*	*05/21/20 10:17*	*05/22/20 05:23*	*1*
Tetrachloro-m-xylene	*66*		*34 - 118*	*05/21/20 10:17*	*05/22/20 05:23*	*1*
Tetrachloro-m-xylene	*105*		*34 - 118*	*05/21/20 10:17*	*05/22/20 05:23*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1221	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1232	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1242	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1248	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1254	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1260	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor-1262	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1268	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Polychlorinated biphenyls, Total	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*73*		*10 - 150*	*05/21/20 09:47*	*05/22/20 08:26*	*1*
DCB Decachlorobiphenyl	*102*		*10 - 150*	*05/21/20 09:47*	*05/22/20 08:26*	*1*
Tetrachloro-m-xylene	*78*		*58 - 145*	*05/21/20 09:47*	*05/22/20 08:26*	*1*
Tetrachloro-m-xylene	*96*		*58 - 145*	*05/21/20 09:47*	*05/22/20 08:26*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.4	U	2.5	1.4	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2
Arsenic	**9.4**		3.7	0.76	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2
Barium	**32.8**	**J**	49.2	4.7	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2
Cadmium	**0.16**	**J**	0.98	0.085	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2
Chromium	**19.9**		2.5	1.7	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2
Lead	**43.2**		2.5	0.40	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2
Selenium	0.83	U	4.9	0.83	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.014**	**J**	0.020	0.0047	mg/Kg	☼	05/21/20 03:19	05/21/20 07:14	1

Client Sample Results

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

Client Sample ID: EXC_01_051920

Date Collected: 05/19/20 07:00
Date Received: 05/19/20 17:30

Lab Sample ID: 460-209199-1

Matrix: Solid
Percent Solids: 76.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	0.40	U	1.4	0.40	mg/Kg	☼	05/24/20 09:30	05/24/20 17:02	1

Surrogate Summary

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(77-145)	(79-125)	(48-150)	(80-120)
460-209199-1	EXC_01_051920	100	102	109	104
LB3 460-695784/1-A	Method Blank	101	99	106	103
LCS 460-695965/3	Lab Control Sample	103	95	101	102
LCS 460-696187/6	Lab Control Sample	95	96	99	100
LCSD 460-695965/4	Lab Control Sample Dup	102	97	102	101
LCSD 460-696187/7	Lab Control Sample Dup	97	97	100	101
MB 460-695965/7	Method Blank	107	100	103	102
MB 460-696187/9	Method Blank	99	97	104	103

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPHL
Lab Sample ID	Client Sample ID	(10-123)	(25-104)	(18-106)	(19-105)	(26-101)	(25-127)
460-208870-E-8-B MS	Matrix Spike	53	64	62	60	60	89
460-208870-E-8-C MSD	Matrix Spike Duplicate	61	68	97	73	103 X	104
460-209199-1	EXC_01_051920	55	50	51	49	48	63
LCS 460-695949/2-A	Lab Control Sample	71	87	91	85	88	122
LCSD 460-695949/3-A	Lab Control Sample Dup	72	92	94	88	91	121
MB 460-695949/1-A	Method Blank	73	88	92	87	92	120

Surrogate Legend

TBP = 2,4,6-Tribromophenol (Surr)
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol (Surr)
NBZ = Nitrobenzene-d5 (Surr)
PHL = Phenol-d5 (Surr)
TPHL = Terphenyl-d14 (Surr)

Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCBP1	DCBP2	TCX1	TCX2
Lab Sample ID	Client Sample ID	(28-148)	(28-148)	(34-118)	(34-118)
460-209199-1	EXC_01_051920	49	1057 X	105	66
460-209218-F-2-F MS	Matrix Spike	87	86	76	76
460-209218-F-2-G MSD	Matrix Spike Duplicate	89	88	80	77
LCS 460-696105/2-A	Lab Control Sample	97	100	100	96
LCSD 460-696105/3-A	Lab Control Sample Dup	99	102	99	99
MB 460-696105/1-A	Method Blank	97	100	95	97

Surrogate Legend

DCBP = DCB Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Surrogate Summary

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
Lab Sample ID	**Client Sample ID**	**DCBP1 (10-150)**	**DCBP2 (10-150)**	**TCX1 (58-145)**	**TCX2 (58-145)**
460-209199-1	EXC_01_051920	102	73	96	78
460-209218-F-2-C MS	Matrix Spike	114	81	105	87
460-209218-F-2-D MSD	Matrix Spike Duplicate	109	76	102	83
LCS 460-696100/2-A	Lab Control Sample	94	70	92	80
LCSD 460-696100/3-A	Lab Control Sample Dup	95	70	93	80
MB 460-696100/1-A	Method Blank	95	71	91	79

Surrogate Legend

DCBP = DCB Decachlorobiphenyl

TCX = Tetrachloro-m-xylene

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: LB3 460-695784/1-A
Matrix: Solid
Analysis Batch: 695965

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 695784

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.23	U	1.0	0.23	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.30	U	1.0	0.30	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,1,2-Trichloroethane	0.18	U	1.0	0.18	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,1-Dichloroethane	0.21	U	1.0	0.21	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,1-Dichloroethene	0.23	U	1.0	0.23	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,2,4-Trichlorobenzene	0.36	U	1.0	0.36	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,2-Dichloropropane	0.42	U	1.0	0.42	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,3-Dichlorobenzene	0.16	U	1.0	0.16	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,4-Dichlorobenzene	0.23	U	1.0	0.23	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,4-Dioxane	9.2	U	20	9.2	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
2-Butanone (MEK)	2.7	U	5.0	2.7	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
2-Hexanone	1.7	U	5.0	1.7	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
4-Methyl-2-pentanone (MIBK)	1.6	U	5.0	1.6	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Acetone	5.7	U	6.0	5.7	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Benzene	0.26	U	1.0	0.26	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Bromoform	0.43	U	1.0	0.43	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Bromomethane	0.47	U	1.0	0.47	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Carbon disulfide	0.27	U	1.0	0.27	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Carbon tetrachloride	0.39	U	1.0	0.39	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Chlorobenzene	0.18	U	1.0	0.18	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Chlorobromomethane	0.28	U	1.0	0.28	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Chlorodibromomethane	0.19	U	1.0	0.19	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Chloroethane	0.52	U	1.0	0.52	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Chloroform	0.32	U	1.0	0.32	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Chloromethane	0.44	U	1.0	0.44	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
cis-1,3-Dichloropropene	0.27	U	1.0	0.27	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Cyclohexane	0.22	U	1.0	0.22	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Dichlorobromomethane	0.26	U	1.0	0.26	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Dichlorodifluoromethane	0.34	U	1.0	0.34	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Ethylbenzene	0.20	U	1.0	0.20	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Ethylene Dibromide	0.18	U	1.0	0.18	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Isopropylbenzene	0.13	U	1.0	0.13	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Methyl acetate	4.3	U	5.0	4.3	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Methylcyclohexane	0.50	U	1.0	0.50	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Methylene Chloride	0.46	U	1.0	0.46	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
m-Xylene & p-Xylene	0.17	U	1.0	0.17	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
o-Xylene	0.19	U	1.0	0.19	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Styrene	0.28	U	1.0	0.28	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Tetrachloroethene	0.14	U	1.0	0.14	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Toluene	0.23	U	1.0	0.23	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
trans-1,3-Dichloropropene	0.27	U	1.0	0.27	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Trichloroethene	0.14	U	1.0	0.14	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
Trichlorofluoromethane	0.41	U	1.0	0.41	ug/Kg		05/20/20 08:32	05/21/20 11:30	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LB3 460-695784/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695965
Prep Batch: 695784

Analyte	LB3 Result	LB3 Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	0.55	U	1.0	0.55	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,2-Dichlorobenzene	0.14	U	1.0	0.14	ug/Kg		05/20/20 08:32	05/21/20 11:30	1
1,2-Dibromo-3-Chloropropane	0.46	U	1.0	0.46	ug/Kg		05/20/20 08:32	05/21/20 11:30	1

Surrogate	*LB3 %Recovery*	*LB3 Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*77 - 145*	*05/20/20 08:32*	*05/21/20 11:30*	*1*
4-Bromofluorobenzene	*99*		*79 - 125*	*05/20/20 08:32*	*05/21/20 11:30*	*1*
Dibromofluoromethane (Surr)	*106*		*48 - 150*	*05/20/20 08:32*	*05/21/20 11:30*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*	*05/20/20 08:32*	*05/21/20 11:30*	*1*

Lab Sample ID: MB 460-695965/7
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695965

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.23	U	1.0	0.23	ug/Kg			05/21/20 06:52	1
1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/Kg			05/21/20 06:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.30	U	1.0	0.30	ug/Kg			05/21/20 06:52	1
1,1,2-Trichloroethane	0.18	U	1.0	0.18	ug/Kg			05/21/20 06:52	1
1,1-Dichloroethane	0.21	U	1.0	0.21	ug/Kg			05/21/20 06:52	1
1,1-Dichloroethene	0.23	U	1.0	0.23	ug/Kg			05/21/20 06:52	1
1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/Kg			05/21/20 06:52	1
1,2,4-Trichlorobenzene	0.36	U	1.0	0.36	ug/Kg			05/21/20 06:52	1
1,2-Dichloropropane	0.42	U	1.0	0.42	ug/Kg			05/21/20 06:52	1
1,3-Dichlorobenzene	0.16	U	1.0	0.16	ug/Kg			05/21/20 06:52	1
1,4-Dichlorobenzene	0.23	U	1.0	0.23	ug/Kg			05/21/20 06:52	1
1,4-Dioxane	9.2	U	20	9.2	ug/Kg			05/21/20 06:52	1
2-Butanone (MEK)	2.7	U	5.0	2.7	ug/Kg			05/21/20 06:52	1
2-Hexanone	1.7	U	5.0	1.7	ug/Kg			05/21/20 06:52	1
4-Methyl-2-pentanone (MIBK)	1.6	U	5.0	1.6	ug/Kg			05/21/20 06:52	1
Acetone	5.7	U	6.0	5.7	ug/Kg			05/21/20 06:52	1
Benzene	0.26	U	1.0	0.26	ug/Kg			05/21/20 06:52	1
Bromoform	0.43	U	1.0	0.43	ug/Kg			05/21/20 06:52	1
Bromomethane	0.47	U	1.0	0.47	ug/Kg			05/21/20 06:52	1
Carbon disulfide	0.27	U	1.0	0.27	ug/Kg			05/21/20 06:52	1
Carbon tetrachloride	0.39	U	1.0	0.39	ug/Kg			05/21/20 06:52	1
Chlorobenzene	0.18	U	1.0	0.18	ug/Kg			05/21/20 06:52	1
Chlorobromomethane	0.28	U	1.0	0.28	ug/Kg			05/21/20 06:52	1
Chlorodibromomethane	0.19	U	1.0	0.19	ug/Kg			05/21/20 06:52	1
Chloroethane	0.52	U	1.0	0.52	ug/Kg			05/21/20 06:52	1
Chloroform	0.32	U	1.0	0.32	ug/Kg			05/21/20 06:52	1
Chloromethane	0.44	U	1.0	0.44	ug/Kg			05/21/20 06:52	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/Kg			05/21/20 06:52	1
cis-1,3-Dichloropropene	0.27	U	1.0	0.27	ug/Kg			05/21/20 06:52	1
Cyclohexane	0.22	U	1.0	0.22	ug/Kg			05/21/20 06:52	1
Dichlorobromomethane	0.26	U	1.0	0.26	ug/Kg			05/21/20 06:52	1
Dichlorodifluoromethane	0.34	U	1.0	0.34	ug/Kg			05/21/20 06:52	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-695965/7
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695965

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.20	U	1.0	0.20	ug/Kg			05/21/20 06:52	1
Ethylene Dibromide	0.18	U	1.0	0.18	ug/Kg			05/21/20 06:52	1
Isopropylbenzene	0.13	U	1.0	0.13	ug/Kg			05/21/20 06:52	1
Methyl acetate	4.3	U	5.0	4.3	ug/Kg			05/21/20 06:52	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/Kg			05/21/20 06:52	1
Methylcyclohexane	0.50	U	1.0	0.50	ug/Kg			05/21/20 06:52	1
Methylene Chloride	0.46	U	1.0	0.46	ug/Kg			05/21/20 06:52	1
m-Xylene & p-Xylene	0.17	U	1.0	0.17	ug/Kg			05/21/20 06:52	1
o-Xylene	0.19	U	1.0	0.19	ug/Kg			05/21/20 06:52	1
Styrene	0.28	U	1.0	0.28	ug/Kg			05/21/20 06:52	1
Tetrachloroethene	0.14	U	1.0	0.14	ug/Kg			05/21/20 06:52	1
Toluene	0.23	U	1.0	0.23	ug/Kg			05/21/20 06:52	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/Kg			05/21/20 06:52	1
trans-1,3-Dichloropropene	0.27	U	1.0	0.27	ug/Kg			05/21/20 06:52	1
Trichloroethene	0.14	U	1.0	0.14	ug/Kg			05/21/20 06:52	1
Trichlorofluoromethane	0.41	U	1.0	0.41	ug/Kg			05/21/20 06:52	1
Vinyl chloride	0.55	U	1.0	0.55	ug/Kg			05/21/20 06:52	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/Kg			05/21/20 06:52	1
1,2-Dichlorobenzene	0.14	U	1.0	0.14	ug/Kg			05/21/20 06:52	1
1,2-Dibromo-3-Chloropropane	0.46	U	1.0	0.46	ug/Kg			05/21/20 06:52	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*77 - 145*		*05/21/20 06:52*	*1*
4-Bromofluorobenzene	*100*		*79 - 125*		*05/21/20 06:52*	*1*
Dibromofluoromethane (Surr)	*103*		*48 - 150*		*05/21/20 06:52*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*05/21/20 06:52*	*1*

Lab Sample ID: LCS 460-695965/3
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695965

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	18.5		ug/Kg		92	78 - 132
1,1,2,2-Tetrachloroethane	20.0	19.6		ug/Kg		98	69 - 123
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.2		ug/Kg		96	78 - 136
1,1,2-Trichloroethane	20.0	19.5		ug/Kg		98	75 - 120
1,1-Dichloroethane	20.0	19.0		ug/Kg		95	76 - 129
1,1-Dichloroethene	20.0	18.8		ug/Kg		94	77 - 132
1,2,3-Trichlorobenzene	20.0	18.1		ug/Kg		91	77 - 120
1,2,4-Trichlorobenzene	20.0	18.1		ug/Kg		91	75 - 120
1,2-Dichloropropane	20.0	19.5		ug/Kg		97	73 - 124
1,3-Dichlorobenzene	20.0	18.3		ug/Kg		92	80 - 120
1,4-Dichlorobenzene	20.0	18.7		ug/Kg		94	80 - 120
1,4-Dioxane	400	404		ug/Kg		101	73 - 136
2-Butanone (MEK)	100	89.2		ug/Kg		89	75 - 120
2-Hexanone	100	95.9		ug/Kg		96	78 - 120
4-Methyl-2-pentanone (MIBK)	100	96.4		ug/Kg		96	80 - 122
Acetone	100	78.2		ug/Kg		78	63 - 131

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-695965/3
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695965

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	18.9		ug/Kg		94	80 - 123
Bromoform	20.0	19.5		ug/Kg		97	48 - 142
Bromomethane	20.0	19.4		ug/Kg		97	68 - 136
Carbon disulfide	20.0	19.3		ug/Kg		96	67 - 136
Carbon tetrachloride	20.0	18.8		ug/Kg		94	72 - 136
Chlorobenzene	20.0	19.2		ug/Kg		96	80 - 120
Chlorobromomethane	20.0	19.8		ug/Kg		99	76 - 127
Chlorodibromomethane	20.0	19.4		ug/Kg		97	62 - 128
Chloroethane	20.0	13.7		ug/Kg		68	65 - 134
Chloroform	20.0	18.1		ug/Kg		91	79 - 126
Chloromethane	20.0	15.6		ug/Kg		78	48 - 150
cis-1,2-Dichloroethene	20.0	18.4		ug/Kg		92	80 - 123
cis-1,3-Dichloropropene	20.0	20.2		ug/Kg		101	72 - 120
Cyclohexane	20.0	19.5		ug/Kg		98	80 - 132
Dichlorobromomethane	20.0	18.7		ug/Kg		94	73 - 124
Dichlorodifluoromethane	20.0	14.4		ug/Kg		72	40 - 146
Ethylbenzene	20.0	18.9		ug/Kg		94	80 - 120
Ethylene Dibromide	20.0	20.5		ug/Kg		103	79 - 120
Isopropylbenzene	20.0	19.5		ug/Kg		97	80 - 120
Methyl acetate	40.0	41.5		ug/Kg		104	58 - 143
Methyl tert-butyl ether	20.0	19.3		ug/Kg		97	80 - 125
Methylcyclohexane	20.0	19.5		ug/Kg		98	79 - 133
Methylene Chloride	20.0	18.5		ug/Kg		92	76 - 127
m-Xylene & p-Xylene	20.0	19.5		ug/Kg		98	80 - 120
o-Xylene	20.0	19.3		ug/Kg		96	80 - 120
Styrene	20.0	19.6		ug/Kg		98	80 - 120
Tetrachloroethene	20.0	18.7		ug/Kg		93	78 - 123
Toluene	20.0	18.8		ug/Kg		94	80 - 120
trans-1,2-Dichloroethene	20.0	18.4		ug/Kg		92	78 - 128
trans-1,3-Dichloropropene	20.0	20.3		ug/Kg		101	68 - 120
Trichloroethene	20.0	17.9		ug/Kg		90	79 - 120
Trichlorofluoromethane	20.0	18.0		ug/Kg		90	67 - 142
Vinyl chloride	20.0	14.2		ug/Kg		71	56 - 147
1,2-Dichloroethane	20.0	18.9		ug/Kg		94	70 - 132
1,2-Dichlorobenzene	20.0	18.5		ug/Kg		93	80 - 120
1,2-Dibromo-3-Chloropropane	20.0	19.1		ug/Kg		95	60 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*77 - 145*
4-Bromofluorobenzene	*95*		*79 - 125*
Dibromofluoromethane (Surr)	*101*		*48 - 150*
Toluene-d8 (Surr)	*102*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-695965/4
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695965

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	18.8		ug/Kg		94	78 - 132	2	30
1,1,2,2-Tetrachloroethane	20.0	20.1		ug/Kg		101	69 - 123	3	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	19.4		ug/Kg		97	78 - 136	1	30
1,1,2-Trichloroethane	20.0	19.9		ug/Kg		99	75 - 120	2	30
1,1-Dichloroethane	20.0	19.1		ug/Kg		95	76 - 129	1	30
1,1-Dichloroethene	20.0	19.1		ug/Kg		96	77 - 132	2	30
1,2,3-Trichlorobenzene	20.0	18.5		ug/Kg		93	77 - 120	2	30
1,2,4-Trichlorobenzene	20.0	18.0		ug/Kg		90	75 - 120	1	30
1,2-Dichloropropane	20.0	19.5		ug/Kg		97	73 - 124	0	30
1,3-Dichlorobenzene	20.0	18.7		ug/Kg		94	80 - 120	2	30
1,4-Dichlorobenzene	20.0	19.1		ug/Kg		96	80 - 120	2	30
1,4-Dioxane	400	401		ug/Kg		100	73 - 136	1	30
2-Butanone (MEK)	100	93.3		ug/Kg		93	75 - 120	4	30
2-Hexanone	100	99.1		ug/Kg		99	78 - 120	3	30
4-Methyl-2-pentanone (MIBK)	100	99.8		ug/Kg		100	80 - 122	3	30
Acetone	100	80.6		ug/Kg		81	63 - 131	3	30
Benzene	20.0	19.0		ug/Kg		95	80 - 123	1	30
Bromoform	20.0	20.2		ug/Kg		101	48 - 142	4	30
Bromomethane	20.0	19.3		ug/Kg		96	68 - 136	1	30
Carbon disulfide	20.0	19.3		ug/Kg		96	67 - 136	0	30
Carbon tetrachloride	20.0	18.9		ug/Kg		94	72 - 136	1	30
Chlorobenzene	20.0	19.4		ug/Kg		97	80 - 120	1	30
Chlorobromomethane	20.0	19.6		ug/Kg		98	76 - 127	1	30
Chlorodibromomethane	20.0	19.6		ug/Kg		98	62 - 128	1	30
Chloroethane	20.0	13.7		ug/Kg		68	65 - 134	0	30
Chloroform	20.0	18.5		ug/Kg		92	79 - 126	2	30
Chloromethane	20.0	15.1		ug/Kg		75	48 - 150	3	30
cis-1,2-Dichloroethene	20.0	18.7		ug/Kg		93	80 - 123	2	30
cis-1,3-Dichloropropene	20.0	20.3		ug/Kg		101	72 - 120	0	30
Cyclohexane	20.0	19.5		ug/Kg		98	80 - 132	0	30
Dichlorobromomethane	20.0	18.9		ug/Kg		94	73 - 124	1	30
Dichlorodifluoromethane	20.0	14.1		ug/Kg		71	40 - 146	2	30
Ethylbenzene	20.0	19.2		ug/Kg		96	80 - 120	2	30
Ethylene Dibromide	20.0	20.7		ug/Kg		104	79 - 120	1	30
Isopropylbenzene	20.0	19.6		ug/Kg		98	80 - 120	1	30
Methyl acetate	40.0	41.6		ug/Kg		104	58 - 143	0	30
Methyl tert-butyl ether	20.0	19.6		ug/Kg		98	80 - 125	1	30
Methylcyclohexane	20.0	19.7		ug/Kg		98	79 - 133	1	30
Methylene Chloride	20.0	18.9		ug/Kg		95	76 - 127	2	30
m-Xylene & p-Xylene	20.0	19.8		ug/Kg		99	80 - 120	1	30
o-Xylene	20.0	19.3		ug/Kg		96	80 - 120	0	30
Styrene	20.0	20.0		ug/Kg		100	80 - 120	2	30
Tetrachloroethene	20.0	18.8		ug/Kg		94	78 - 123	1	30
Toluene	20.0	18.8		ug/Kg		94	80 - 120	0	30
trans-1,2-Dichloroethene	20.0	18.5		ug/Kg		92	78 - 128	0	30
trans-1,3-Dichloropropene	20.0	20.2		ug/Kg		101	68 - 120	0	30
Trichloroethene	20.0	18.5		ug/Kg		93	79 - 120	3	30
Trichlorofluoromethane	20.0	17.7		ug/Kg		88	67 - 142	2	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-695965/4
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695965

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	20.0	14.1		ug/Kg		70	56 - 147	1	30
1,2-Dichloroethane	20.0	19.3		ug/Kg		96	70 - 132	2	30
1,2-Dichlorobenzene	20.0	19.2		ug/Kg		96	80 - 120	4	30
1,2-Dibromo-3-Chloropropane	20.0	20.0		ug/Kg		100	60 - 126	5	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*77 - 145*
4-Bromofluorobenzene	*97*		*79 - 125*
Dibromofluoromethane (Surr)	*102*		*48 - 150*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: MB 460-696187/9
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696187

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.23	U	1.0	0.23	ug/Kg			05/21/20 20:14	1
1,1,2,2-Tetrachloroethane	0.21	U	1.0	0.21	ug/Kg			05/21/20 20:14	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.30	U	1.0	0.30	ug/Kg			05/21/20 20:14	1
1,1,2-Trichloroethane	0.18	U	1.0	0.18	ug/Kg			05/21/20 20:14	1
1,1-Dichloroethane	0.21	U	1.0	0.21	ug/Kg			05/21/20 20:14	1
1,1-Dichloroethene	0.23	U	1.0	0.23	ug/Kg			05/21/20 20:14	1
1,2,3-Trichlorobenzene	0.18	U	1.0	0.18	ug/Kg			05/21/20 20:14	1
1,2,4-Trichlorobenzene	0.36	U	1.0	0.36	ug/Kg			05/21/20 20:14	1
1,2-Dichloropropane	0.42	U	1.0	0.42	ug/Kg			05/21/20 20:14	1
1,3-Dichlorobenzene	0.16	U	1.0	0.16	ug/Kg			05/21/20 20:14	1
1,4-Dichlorobenzene	0.23	U	1.0	0.23	ug/Kg			05/21/20 20:14	1
1,4-Dioxane	9.2	U	20	9.2	ug/Kg			05/21/20 20:14	1
2-Butanone (MEK)	2.7	U	5.0	2.7	ug/Kg			05/21/20 20:14	1
2-Hexanone	1.7	U	5.0	1.7	ug/Kg			05/21/20 20:14	1
4-Methyl-2-pentanone (MIBK)	1.6	U	5.0	1.6	ug/Kg			05/21/20 20:14	1
Acetone	5.7	U	6.0	5.7	ug/Kg			05/21/20 20:14	1
Benzene	0.26	U	1.0	0.26	ug/Kg			05/21/20 20:14	1
Bromoform	0.43	U	1.0	0.43	ug/Kg			05/21/20 20:14	1
Bromomethane	0.47	U	1.0	0.47	ug/Kg			05/21/20 20:14	1
Carbon disulfide	0.27	U	1.0	0.27	ug/Kg			05/21/20 20:14	1
Carbon tetrachloride	0.39	U	1.0	0.39	ug/Kg			05/21/20 20:14	1
Chlorobenzene	0.18	U	1.0	0.18	ug/Kg			05/21/20 20:14	1
Chlorobromomethane	0.28	U	1.0	0.28	ug/Kg			05/21/20 20:14	1
Chlorodibromomethane	0.19	U	1.0	0.19	ug/Kg			05/21/20 20:14	1
Chloroethane	0.52	U	1.0	0.52	ug/Kg			05/21/20 20:14	1
Chloroform	0.32	U	1.0	0.32	ug/Kg			05/21/20 20:14	1
Chloromethane	0.44	U	1.0	0.44	ug/Kg			05/21/20 20:14	1
cis-1,2-Dichloroethene	0.15	U	1.0	0.15	ug/Kg			05/21/20 20:14	1
cis-1,3-Dichloropropene	0.27	U	1.0	0.27	ug/Kg			05/21/20 20:14	1
Cyclohexane	0.22	U	1.0	0.22	ug/Kg			05/21/20 20:14	1
Dichlorobromomethane	0.26	U	1.0	0.26	ug/Kg			05/21/20 20:14	1
Dichlorodifluoromethane	0.34	U	1.0	0.34	ug/Kg			05/21/20 20:14	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 460-696187/9
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696187

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	0.20	U	1.0	0.20	ug/Kg			05/21/20 20:14	1
Ethylene Dibromide	0.18	U	1.0	0.18	ug/Kg			05/21/20 20:14	1
Isopropylbenzene	0.13	U	1.0	0.13	ug/Kg			05/21/20 20:14	1
Methyl acetate	4.3	U	5.0	4.3	ug/Kg			05/21/20 20:14	1
Methyl tert-butyl ether	0.13	U	1.0	0.13	ug/Kg			05/21/20 20:14	1
Methylcyclohexane	0.50	U	1.0	0.50	ug/Kg			05/21/20 20:14	1
Methylene Chloride	0.46	U	1.0	0.46	ug/Kg			05/21/20 20:14	1
m-Xylene & p-Xylene	0.17	U	1.0	0.17	ug/Kg			05/21/20 20:14	1
o-Xylene	0.19	U	1.0	0.19	ug/Kg			05/21/20 20:14	1
Styrene	0.28	U	1.0	0.28	ug/Kg			05/21/20 20:14	1
Tetrachloroethene	0.14	U	1.0	0.14	ug/Kg			05/21/20 20:14	1
Toluene	0.23	U	1.0	0.23	ug/Kg			05/21/20 20:14	1
trans-1,2-Dichloroethene	0.25	U	1.0	0.25	ug/Kg			05/21/20 20:14	1
trans-1,3-Dichloropropene	0.27	U	1.0	0.27	ug/Kg			05/21/20 20:14	1
Trichloroethene	0.14	U	1.0	0.14	ug/Kg			05/21/20 20:14	1
Trichlorofluoromethane	0.41	U	1.0	0.41	ug/Kg			05/21/20 20:14	1
Vinyl chloride	0.55	U	1.0	0.55	ug/Kg			05/21/20 20:14	1
1,2-Dichloroethane	0.30	U	1.0	0.30	ug/Kg			05/21/20 20:14	1
1,2-Dichlorobenzene	0.14	U	1.0	0.14	ug/Kg			05/21/20 20:14	1
1,2-Dibromo-3-Chloropropane	0.46	U	1.0	0.46	ug/Kg			05/21/20 20:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*77 - 145*		*05/21/20 20:14*	*1*
4-Bromofluorobenzene	*97*		*79 - 125*		*05/21/20 20:14*	*1*
Dibromofluoromethane (Surr)	*104*		*48 - 150*		*05/21/20 20:14*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*05/21/20 20:14*	*1*

Lab Sample ID: LCS 460-696187/6
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	20.0		ug/Kg		100	78 - 132
1,1,2,2-Tetrachloroethane	20.0	19.1		ug/Kg		96	69 - 123
1,1,2-Trichloro-1,2,2-trifluoroetha ne	20.0	21.5		ug/Kg		108	78 - 136
1,1,2-Trichloroethane	20.0	19.2		ug/Kg		96	75 - 120
1,1-Dichloroethane	20.0	20.0		ug/Kg		100	76 - 129
1,1-Dichloroethene	20.0	20.8		ug/Kg		104	77 - 132
1,2,3-Trichlorobenzene	20.0	17.8		ug/Kg		89	77 - 120
1,2,4-Trichlorobenzene	20.0	17.3		ug/Kg		86	75 - 120
1,2-Dichloropropane	20.0	19.7		ug/Kg		98	73 - 124
1,3-Dichlorobenzene	20.0	18.9		ug/Kg		95	80 - 120
1,4-Dichlorobenzene	20.0	18.8		ug/Kg		94	80 - 120
1,4-Dioxane	400	394		ug/Kg		98	73 - 136
2-Butanone (MEK)	100	91.5		ug/Kg		92	75 - 120
2-Hexanone	100	99.0		ug/Kg		99	78 - 120
4-Methyl-2-pentanone (MIBK)	100	98.6		ug/Kg		99	80 - 122
Acetone	100	79.3		ug/Kg		79	63 - 131

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 460-696187/6
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696187

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	20.0	19.4		ug/Kg		97	80 - 123
Bromoform	20.0	18.6		ug/Kg		93	48 - 142
Bromomethane	20.0	24.1		ug/Kg		121	68 - 136
Carbon disulfide	20.0	20.7		ug/Kg		103	67 - 136
Carbon tetrachloride	20.0	20.4		ug/Kg		102	72 - 136
Chlorobenzene	20.0	19.8		ug/Kg		99	80 - 120
Chlorobromomethane	20.0	19.5		ug/Kg		97	76 - 127
Chlorodibromomethane	20.0	18.7		ug/Kg		94	62 - 128
Chloroethane	20.0	14.8		ug/Kg		74	65 - 134
Chloroform	20.0	18.9		ug/Kg		95	79 - 126
Chloromethane	20.0	16.4		ug/Kg		82	48 - 150
cis-1,2-Dichloroethene	20.0	19.3		ug/Kg		97	80 - 123
cis-1,3-Dichloropropene	20.0	19.4		ug/Kg		97	72 - 120
Cyclohexane	20.0	21.4		ug/Kg		107	80 - 132
Dichlorobromomethane	20.0	18.8		ug/Kg		94	73 - 124
Dichlorodifluoromethane	20.0	16.2		ug/Kg		81	40 - 146
Ethylbenzene	20.0	20.0		ug/Kg		100	80 - 120
Ethylene Dibromide	20.0	19.2		ug/Kg		96	79 - 120
Isopropylbenzene	20.0	20.6		ug/Kg		103	80 - 120
Methyl acetate	40.0	37.3		ug/Kg		93	58 - 143
Methyl tert-butyl ether	20.0	18.2		ug/Kg		91	80 - 125
Methylcyclohexane	20.0	21.2		ug/Kg		106	79 - 133
Methylene Chloride	20.0	19.1		ug/Kg		95	76 - 127
m-Xylene & p-Xylene	20.0	20.2		ug/Kg		101	80 - 120
o-Xylene	20.0	19.6		ug/Kg		98	80 - 120
Styrene	20.0	20.1		ug/Kg		100	80 - 120
Tetrachloroethene	20.0	19.6		ug/Kg		98	78 - 123
Toluene	20.0	19.6		ug/Kg		98	80 - 120
trans-1,2-Dichloroethene	20.0	19.9		ug/Kg		99	78 - 128
trans-1,3-Dichloropropene	20.0	19.1		ug/Kg		96	68 - 120
Trichloroethene	20.0	19.6		ug/Kg		98	79 - 120
Trichlorofluoromethane	20.0	19.5		ug/Kg		98	67 - 142
Vinyl chloride	20.0	15.0		ug/Kg		75	56 - 147
1,2-Dichloroethane	20.0	18.6		ug/Kg		93	70 - 132
1,2-Dichlorobenzene	20.0	18.7		ug/Kg		93	80 - 120
1,2-Dibromo-3-Chloropropane	20.0	19.0		ug/Kg		95	60 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*95*		*77 - 145*
4-Bromofluorobenzene	*96*		*79 - 125*
Dibromofluoromethane (Surr)	*99*		*48 - 150*
Toluene-d8 (Surr)	*100*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-696187/7
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696187

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	19.7		ug/Kg		98	78 - 132	2	30
1,1,2,2-Tetrachloroethane	20.0	18.7		ug/Kg		94	69 - 123	2	30
1,1,2-Trichloro-1,2,2-trifluoroethane	20.0	21.0		ug/Kg		105	78 - 136	2	30
1,1,2-Trichloroethane	20.0	19.5		ug/Kg		98	75 - 120	1	30
1,1-Dichloroethane	20.0	19.7		ug/Kg		98	76 - 129	2	30
1,1-Dichloroethene	20.0	20.4		ug/Kg		102	77 - 132	2	30
1,2,3-Trichlorobenzene	20.0	17.6		ug/Kg		88	77 - 120	1	30
1,2,4-Trichlorobenzene	20.0	17.4		ug/Kg		87	75 - 120	1	30
1,2-Dichloropropane	20.0	20.4		ug/Kg		102	73 - 124	4	30
1,3-Dichlorobenzene	20.0	18.6		ug/Kg		93	80 - 120	2	30
1,4-Dichlorobenzene	20.0	18.7		ug/Kg		93	80 - 120	0	30
1,4-Dioxane	400	399		ug/Kg		100	73 - 136	1	30
2-Butanone (MEK)	100	92.7		ug/Kg		93	75 - 120	1	30
2-Hexanone	100	99.4		ug/Kg		99	78 - 120	0	30
4-Methyl-2-pentanone (MIBK)	100	98.3		ug/Kg		98	80 - 122	0	30
Acetone	100	79.6		ug/Kg		80	63 - 131	0	30
Benzene	20.0	19.5		ug/Kg		97	80 - 123	1	30
Bromoform	20.0	19.1		ug/Kg		95	48 - 142	2	30
Bromomethane	20.0	23.2		ug/Kg		116	68 - 136	4	30
Carbon disulfide	20.0	20.5		ug/Kg		103	67 - 136	1	30
Carbon tetrachloride	20.0	20.1		ug/Kg		100	72 - 136	1	30
Chlorobenzene	20.0	19.8		ug/Kg		99	80 - 120	0	30
Chlorobromomethane	20.0	19.7		ug/Kg		98	76 - 127	1	30
Chlorodibromomethane	20.0	18.7		ug/Kg		93	62 - 128	0	30
Chloroethane	20.0	13.9		ug/Kg		69	65 - 134	7	30
Chloroform	20.0	18.9		ug/Kg		94	79 - 126	0	30
Chloromethane	20.0	15.4		ug/Kg		77	48 - 150	6	30
cis-1,2-Dichloroethene	20.0	19.2		ug/Kg		96	80 - 123	0	30
cis-1,3-Dichloropropene	20.0	19.9		ug/Kg		100	72 - 120	3	30
Cyclohexane	20.0	20.8		ug/Kg		104	80 - 132	3	30
Dichlorobromomethane	20.0	18.9		ug/Kg		94	73 - 124	1	30
Dichlorodifluoromethane	20.0	14.8		ug/Kg		74	40 - 146	9	30
Ethylbenzene	20.0	19.9		ug/Kg		99	80 - 120	1	30
Ethylene Dibromide	20.0	19.4		ug/Kg		97	79 - 120	1	30
Isopropylbenzene	20.0	20.4		ug/Kg		102	80 - 120	1	30
Methyl acetate	40.0	36.9		ug/Kg		92	58 - 143	1	30
Methyl tert-butyl ether	20.0	18.5		ug/Kg		93	80 - 125	2	30
Methylcyclohexane	20.0	20.4		ug/Kg		102	79 - 133	4	30
Methylene Chloride	20.0	19.3		ug/Kg		96	76 - 127	1	30
m-Xylene & p-Xylene	20.0	20.2		ug/Kg		101	80 - 120	0	30
o-Xylene	20.0	19.9		ug/Kg		100	80 - 120	2	30
Styrene	20.0	20.1		ug/Kg		101	80 - 120	0	30
Tetrachloroethene	20.0	19.6		ug/Kg		98	78 - 123	0	30
Toluene	20.0	19.3		ug/Kg		96	80 - 120	2	30
trans-1,2-Dichloroethene	20.0	19.8		ug/Kg		99	78 - 128	1	30
trans-1,3-Dichloropropene	20.0	19.4		ug/Kg		97	68 - 120	1	30
Trichloroethene	20.0	19.5		ug/Kg		97	79 - 120	1	30
Trichlorofluoromethane	20.0	17.9		ug/Kg		90	67 - 142	8	30

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 460-696187/7
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696187

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Vinyl chloride	20.0	14.5		ug/Kg		73	56 - 147	4	30
1,2-Dichloroethane	20.0	18.7		ug/Kg		94	70 - 132	0	30
1,2-Dichlorobenzene	20.0	18.8		ug/Kg		94	80 - 120	0	30
1,2-Dibromo-3-Chloropropane	20.0	18.3		ug/Kg		91	60 - 126	4	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*77 - 145*
4-Bromofluorobenzene	*97*		*79 - 125*
Dibromofluoromethane (Surr)	*100*		*48 - 150*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 460-695949/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695998
Prep Batch: 695949

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	4.4	U	330	4.4	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
1,2,4,5-Tetrachlorobenzene	10	U	330	10	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2,2'-oxybis[1-chloropropane]	6.0	U	330	6.0	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2,3,4,6-Tetrachlorophenol	22	U	330	22	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2,4,5-Trichlorophenol	34	U	330	34	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2,4,6-Trichlorophenol	42	U	130	42	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2,4-Dichlorophenol	21	U	130	21	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2,4-Dimethylphenol	15	U	330	15	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2,4-Dinitrophenol	160	U	270	160	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2,4-Dinitrotoluene	36	U	67	36	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2,6-Dinitrotoluene	24	U	67	24	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2-Chloronaphthalene	15	U	330	15	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2-Chlorophenol	12	U	330	12	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2-Methylnaphthalene	9.3	U	330	9.3	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2-Methylphenol	12	U	330	12	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2-Nitroaniline	12	U	330	12	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
2-Nitrophenol	33	U	330	33	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
3,3'-Dichlorobenzidine	50	U	130	50	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
3-Nitroaniline	37	U	330	37	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
4,6-Dinitro-2-methylphenol	54	U	270	54	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
4-Bromophenyl phenyl ether	13	U	330	13	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
4-Chloro-3-methylphenol	19	U	330	19	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
4-Chloroaniline	23	U	330	23	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
4-Chlorophenyl phenyl ether	12	U	330	12	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
4-Methylphenol	21	U	330	21	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
4-Nitroaniline	38	U	330	38	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
4-Nitrophenol	54	U	670	54	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Acenaphthene	24	U	330	24	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Acenaphthylene	3.4	U	330	3.4	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Acetophenone	16	U	330	16	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Anthracene	10	U	330	10	ug/Kg		05/20/20 17:45	05/21/20 02:29	1

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 460-695949/1-A
Matrix: Solid
Analysis Batch: 695998

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 695949

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Atrazine	8.3	U	130	8.3	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Benzaldehyde	14	U	330	14	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Benzo[a]anthracene	12	U	33	12	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Benzo[a]pyrene	8.8	U	33	8.8	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Benzo[b]fluoranthene	8.6	U	33	8.6	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Benzo[g,h,i]perylene	9.8	U	330	9.8	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Benzo[k]fluoranthene	6.5	U	33	6.5	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Bis(2-chloroethoxy)methane	26	U	330	26	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Bis(2-chloroethyl)ether	12	U	33	12	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Bis(2-ethylhexyl) phthalate	17	U	330	17	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Butyl benzyl phthalate	16	U	330	16	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Caprolactam	51	U	330	51	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Carbazole	13	U	330	13	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Chrysene	5.6	U	330	5.6	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Dibenz(a,h)anthracene	14	U	33	14	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Dibenzofuran	4.6	U	330	4.6	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Diethyl phthalate	4.8	U	330	4.8	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Dimethyl phthalate	75	U	330	75	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Di-n-butyl phthalate	58	U	330	58	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Di-n-octyl phthalate	18	U	330	18	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Fluoranthene	12	U	330	12	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Fluorene	4.5	U	330	4.5	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Hexachlorobenzene	16	U	33	16	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Hexachlorobutadiene	7.0	U	67	7.0	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Hexachlorocyclopentadiene	29	U	330	29	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Hexachloroethane	11	U	33	11	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Indeno[1,2,3-cd]pyrene	13	U	33	13	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Isophorone	96	U	130	96	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Naphthalene	5.7	U	330	5.7	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Nitrobenzene	7.9	U	33	7.9	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
N-Nitrosodi-n-propylamine	24	U	33	24	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
N-Nitrosodiphenylamine	6.3	U	330	6.3	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Pentachlorophenol	68	U	270	68	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Phenanthrene	5.8	U	330	5.8	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Phenol	12	U	330	12	ug/Kg		05/20/20 17:45	05/21/20 02:29	1
Pyrene	8.2	U	330	8.2	ug/Kg		05/20/20 17:45	05/21/20 02:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*73*		*10 - 123*	*05/20/20 17:45*	*05/21/20 02:29*	*1*
2-Fluorobiphenyl	*88*		*25 - 104*	*05/20/20 17:45*	*05/21/20 02:29*	*1*
2-Fluorophenol (Surr)	*92*		*18 - 106*	*05/20/20 17:45*	*05/21/20 02:29*	*1*
Nitrobenzene-d5 (Surr)	*87*		*19 - 105*	*05/20/20 17:45*	*05/21/20 02:29*	*1*
Phenol-d5 (Surr)	*92*		*26 - 101*	*05/20/20 17:45*	*05/21/20 02:29*	*1*
Terphenyl-d14 (Surr)	*120*		*25 - 127*	*05/20/20 17:45*	*05/21/20 02:29*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-695949/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695998
Prep Batch: 695949

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	3330	2900		ug/Kg		87	65 - 110
1,2,4,5-Tetrachlorobenzene	3330	2750		ug/Kg		82	64 - 110
2,2'-oxybis[1-chloropropane]	3330	3730	*	ug/Kg		112	49 - 109
2,3,4,6-Tetrachlorophenol	3330	2490		ug/Kg		75	58 - 113
2,4,5-Trichlorophenol	3330	2690		ug/Kg		81	64 - 112
2,4,6-Trichlorophenol	3330	2630		ug/Kg		79	63 - 113
2,4-Dichlorophenol	3330	2720		ug/Kg		82	66 - 113
2,4-Dimethylphenol	3330	2940		ug/Kg		88	63 - 107
2,4-Dinitrophenol	6670	4830		ug/Kg		72	37 - 125
2,4-Dinitrotoluene	3330	2680		ug/Kg		80	65 - 124
2,6-Dinitrotoluene	3330	2870		ug/Kg		86	67 - 121
2-Chloronaphthalene	3330	2880		ug/Kg		86	65 - 109
2-Chlorophenol	3330	2800		ug/Kg		84	63 - 106
2-Methylnaphthalene	3330	2690		ug/Kg		81	64 - 108
2-Methylphenol	3330	2820		ug/Kg		85	63 - 108
2-Nitroaniline	3330	2520		ug/Kg		76	59 - 119
2-Nitrophenol	3330	2840		ug/Kg		85	64 - 112
3,3'-Dichlorobenzidine	3330	574		ug/Kg		17	4 - 119
3-Nitroaniline	3330	1150		ug/Kg		34	31 - 102
4,6-Dinitro-2-methylphenol	6670	5620		ug/Kg		84	64 - 129
4-Bromophenyl phenyl ether	3330	2990		ug/Kg		90	67 - 113
4-Chloro-3-methylphenol	3330	2670		ug/Kg		80	66 - 114
4-Chloroaniline	3330	554	*	ug/Kg		17	20 - 98
4-Chlorophenyl phenyl ether	3330	2710		ug/Kg		81	66 - 110
4-Methylphenol	3330	2600		ug/Kg		78	61 - 108
4-Nitroaniline	3330	2180		ug/Kg		65	50 - 110
4-Nitrophenol	6670	4710		ug/Kg		71	47 - 123
Acenaphthene	3330	2470		ug/Kg		74	53 - 110
Acenaphthylene	3330	2830		ug/Kg		85	64 - 108
Acetophenone	3330	2350		ug/Kg		71	61 - 103
Anthracene	3330	2910		ug/Kg		87	67 - 114
Atrazine	1330	1170		ug/Kg		88	44 - 145
Benzaldehyde	1330	1110		ug/Kg		83	39 - 113
Benzo[a]anthracene	3330	2950		ug/Kg		89	67 - 115
Benzo[a]pyrene	3330	3210		ug/Kg		96	63 - 108
Benzo[b]fluoranthene	3330	3350		ug/Kg		101	64 - 116
Benzo[g,h,i]perylene	3330	2550		ug/Kg		76	61 - 113
Benzo[k]fluoranthene	3330	3360		ug/Kg		101	67 - 115
Bis(2-chloroethoxy)methane	3330	2660		ug/Kg		80	62 - 107
Bis(2-chloroethyl)ether	3330	2760		ug/Kg		83	60 - 107
Bis(2-ethylhexyl) phthalate	3330	3110		ug/Kg		93	69 - 124
Butyl benzyl phthalate	3330	3210		ug/Kg		96	70 - 123
Caprolactam	1330	1200		ug/Kg		90	59 - 140
Carbazole	3330	2730		ug/Kg		82	64 - 113
Chrysene	3330	3050		ug/Kg		92	71 - 122
Dibenz(a,h)anthracene	3330	2690		ug/Kg		81	66 - 119
Dibenzofuran	3330	2780		ug/Kg		83	65 - 108
Diethyl phthalate	3330	2570		ug/Kg		77	63 - 109

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 460-695949/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695998
Prep Batch: 695949

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dimethyl phthalate	3330	2660		ug/Kg		80	65 - 109
Di-n-butyl phthalate	3330	2660		ug/Kg		80	66 - 114
Di-n-octyl phthalate	3330	3690		ug/Kg		111	65 - 122
Fluoranthene	3330	2590		ug/Kg		78	64 - 113
Fluorene	3330	2750		ug/Kg		83	65 - 109
Hexachlorobenzene	3330	2680		ug/Kg		80	70 - 119
Hexachlorobutadiene	3330	2440		ug/Kg		73	62 - 109
Hexachlorocyclopentadiene	3330	2140		ug/Kg		64	22 - 124
Hexachloroethane	3330	2610		ug/Kg		78	61 - 102
Indeno[1,2,3-cd]pyrene	3330	2790		ug/Kg		84	62 - 121
Isophorone	3330	2660		ug/Kg		80	63 - 107
Naphthalene	3330	2770		ug/Kg		83	63 - 106
Nitrobenzene	3330	2790		ug/Kg		84	63 - 110
N-Nitrosodi-n-propylamine	3330	2680		ug/Kg		80	61 - 108
N-Nitrosodiphenylamine	3330	3110		ug/Kg		93	67 - 113
Pentachlorophenol	6670	4300		ug/Kg		65	44 - 126
Phenanthrene	3330	2910		ug/Kg		87	66 - 112
Phenol	3330	2770		ug/Kg		83	63 - 110
Pyrene	3330	3580		ug/Kg		107	71 - 122

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*71*		*10 - 123*
2-Fluorobiphenyl	*87*		*25 - 104*
2-Fluorophenol (Surr)	*91*		*18 - 106*
Nitrobenzene-d5 (Surr)	*85*		*19 - 105*
Phenol-d5 (Surr)	*88*		*26 - 101*
Terphenyl-d14 (Surr)	*122*		*25 - 127*

Lab Sample ID: LCSD 460-695949/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695998
Prep Batch: 695949

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	3330	2990		ug/Kg		90	65 - 110	3	30
1,2,4,5-Tetrachlorobenzene	3330	2870		ug/Kg		86	64 - 110	4	30
2,2'-oxybis[1-chloropropane]	3330	3800	*	ug/Kg		114	49 - 109	2	30
2,3,4,6-Tetrachlorophenol	3330	2500		ug/Kg		75	58 - 113	0	30
2,4,5-Trichlorophenol	3330	2680		ug/Kg		80	64 - 112	1	30
2,4,6-Trichlorophenol	3330	2720		ug/Kg		81	63 - 113	3	30
2,4-Dichlorophenol	3330	2780		ug/Kg		83	66 - 113	2	30
2,4-Dimethylphenol	3330	2960		ug/Kg		89	63 - 107	1	30
2,4-Dinitrophenol	6670	4900		ug/Kg		74	37 - 125	1	30
2,4-Dinitrotoluene	3330	2720		ug/Kg		81	65 - 124	1	30
2,6-Dinitrotoluene	3330	2900		ug/Kg		87	67 - 121	1	30
2-Chloronaphthalene	3330	2990		ug/Kg		90	65 - 109	4	30
2-Chlorophenol	3330	2870		ug/Kg		86	63 - 106	3	30
2-Methylnaphthalene	3330	2770		ug/Kg		83	64 - 108	3	30
2-Methylphenol	3330	2880		ug/Kg		86	63 - 108	2	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-695949/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695998
Prep Batch: 695949

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Nitroaniline	3330	2560		ug/Kg		77	59 - 119	2	30
2-Nitrophenol	3330	2900		ug/Kg		87	64 - 112	2	30
3,3'-Dichlorobenzidine	3330	649		ug/Kg		19	4 - 119	12	30
3-Nitroaniline	3330	1230		ug/Kg		37	31 - 102	7	30
4,6-Dinitro-2-methylphenol	6670	5840		ug/Kg		88	64 - 129	4	30
4-Bromophenyl phenyl ether	3330	3010		ug/Kg		90	67 - 113	1	30
4-Chloro-3-methylphenol	3330	2680		ug/Kg		80	66 - 114	0	30
4-Chloroaniline	3330	679		ug/Kg		20	20 - 98	20	30
4-Chlorophenyl phenyl ether	3330	2760		ug/Kg		83	66 - 110	2	30
4-Methylphenol	3330	2580		ug/Kg		77	61 - 108	1	30
4-Nitroaniline	3330	2260		ug/Kg		68	50 - 110	4	30
4-Nitrophenol	6670	4760		ug/Kg		71	47 - 123	1	30
Acenaphthene	3330	2510		ug/Kg		75	53 - 110	2	30
Acenaphthylene	3330	2880		ug/Kg		86	64 - 108	2	30
Acetophenone	3330	2390		ug/Kg		72	61 - 103	2	30
Anthracene	3330	3000		ug/Kg		90	67 - 114	3	30
Atrazine	1330	1050		ug/Kg		78	44 - 145	11	30
Benzaldehyde	1330	998		ug/Kg		75	39 - 113	11	30
Benzo[a]anthracene	3330	2990		ug/Kg		90	67 - 115	1	30
Benzo[a]pyrene	3330	3240		ug/Kg		97	63 - 108	1	30
Benzo[b]fluoranthene	3330	3420		ug/Kg		103	64 - 116	2	30
Benzo[g,h,i]perylene	3330	2660		ug/Kg		80	61 - 113	4	30
Benzo[k]fluoranthene	3330	3390		ug/Kg		102	67 - 115	1	30
Bis(2-chloroethoxy)methane	3330	2770		ug/Kg		83	62 - 107	4	30
Bis(2-chloroethyl)ether	3330	2860		ug/Kg		86	60 - 107	3	30
Bis(2-ethylhexyl) phthalate	3330	3100		ug/Kg		93	69 - 124	0	30
Butyl benzyl phthalate	3330	3170		ug/Kg		95	70 - 123	1	30
Caprolactam	1330	896		ug/Kg		67	59 - 140	29	30
Carbazole	3330	2830		ug/Kg		85	64 - 113	4	30
Chrysene	3330	3040		ug/Kg		91	71 - 122	0	30
Dibenz(a,h)anthracene	3330	2810		ug/Kg		84	66 - 119	4	30
Dibenzofuran	3330	2860		ug/Kg		86	65 - 108	3	30
Diethyl phthalate	3330	2550		ug/Kg		77	63 - 109	1	30
Dimethyl phthalate	3330	2670		ug/Kg		80	65 - 109	0	30
Di-n-butyl phthalate	3330	2750		ug/Kg		82	66 - 114	3	30
Di-n-octyl phthalate	3330	3620		ug/Kg		109	65 - 122	2	30
Fluoranthene	3330	2680		ug/Kg		81	64 - 113	3	30
Fluorene	3330	2810		ug/Kg		84	65 - 109	2	30
Hexachlorobenzene	3330	2740		ug/Kg		82	70 - 119	2	30
Hexachlorobutadiene	3330	2490		ug/Kg		75	62 - 109	2	30
Hexachlorocyclopentadiene	3330	2240		ug/Kg		67	22 - 124	5	30
Hexachloroethane	3330	2680		ug/Kg		80	61 - 102	3	30
Indeno[1,2,3-cd]pyrene	3330	2920		ug/Kg		87	62 - 121	5	30
Isophorone	3330	2730		ug/Kg		82	63 - 107	2	30
Naphthalene	3330	2850		ug/Kg		85	63 - 106	3	30
Nitrobenzene	3330	2900		ug/Kg		87	63 - 110	4	30
N-Nitrosodi-n-propylamine	3330	2720		ug/Kg		81	61 - 108	1	30
N-Nitrosodiphenylamine	3330	3210		ug/Kg		96	67 - 113	3	30
Pentachlorophenol	6670	4370		ug/Kg		66	44 - 126	2	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 460-695949/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695998
Prep Batch: 695949

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Phenanthrene			3330	2990		ug/Kg		90	66 - 112	3	30
Phenol			3330	2880		ug/Kg		86	63 - 110	4	30
Pyrene			3330	3530		ug/Kg		106	71 - 122	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*72*		*10 - 123*
2-Fluorobiphenyl	*92*		*25 - 104*
2-Fluorophenol (Surr)	*94*		*18 - 106*
Nitrobenzene-d5 (Surr)	*88*		*19 - 105*
Phenol-d5 (Surr)	*91*		*26 - 101*
Terphenyl-d14 (Surr)	*121*		*25 - 127*

Lab Sample ID: 460-208870-E-8-B MS
Client Sample ID: Matrix Spike
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695998
Prep Batch: 695949

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1'-Biphenyl	5.0	U F1	3830	2340	F1	ug/Kg	☼	61	65 - 110
1,2,4,5-Tetrachlorobenzene	12	U F1	3830	2170	F1	ug/Kg	☼	57	64 - 110
2,2'-oxybis[1-chloropropane]	6.9	U *	3830	2750		ug/Kg	☼	72	49 - 109
2,3,4,6-Tetrachlorophenol	26	U F1	3830	2000	F1	ug/Kg	☼	52	58 - 113
2,4,5-Trichlorophenol	39	U F1	3830	2190	F1	ug/Kg	☼	57	64 - 112
2,4,6-Trichlorophenol	49	U F1	3830	2180	F1	ug/Kg	☼	57	63 - 113
2,4-Dichlorophenol	24	U F1 F2	3830	2200	F1	ug/Kg	☼	57	66 - 113
2,4-Dimethylphenol	17	U F1 F2	3830	2320	F1	ug/Kg	☼	61	63 - 107
2,4-Dinitrophenol	190	U F1 F2	7660	2320	F1	ug/Kg	☼	30	37 - 125
2,4-Dinitrotoluene	41	U F1	3830	2280	F1	ug/Kg	☼	60	65 - 124
2,6-Dinitrotoluene	27	U F1	3830	2380	F1	ug/Kg	☼	62	67 - 121
2-Chloronaphthalene	18	U F1	3830	2320	F1	ug/Kg	☼	60	65 - 109
2-Chlorophenol	14	U F1 F2	3830	2130	F1	ug/Kg	☼	56	63 - 106
2-Methylnaphthalene	11	U F1	3830	2130	F1	ug/Kg	☼	56	64 - 108
2-Methylphenol	14	U F1 F2	3830	2170	F1	ug/Kg	☼	57	63 - 108
2-Nitroaniline	14	U F1	3830	2090	F1	ug/Kg	☼	55	59 - 119
2-Nitrophenol	38	U F1	3830	2200	F1	ug/Kg	☼	58	64 - 112
3,3'-Dichlorobenzidine	57	U F2	3830	1920		ug/Kg	☼	50	4 - 119
3-Nitroaniline	43	U	3830	1690		ug/Kg	☼	44	31 - 102
4,6-Dinitro-2-methylphenol	62	U F1	7660	3740	F1	ug/Kg	☼	49	64 - 129
4-Bromophenyl phenyl ether	15	U F1	3830	2510	F1	ug/Kg	☼	66	67 - 113
4-Chloro-3-methylphenol	21	U F1 F2	3830	2160	F1	ug/Kg	☼	56	66 - 114
4-Chloroaniline	27	U *	3830	2000		ug/Kg	☼	52	20 - 98
4-Chlorophenyl phenyl ether	13	U F1	3830	2270	F1	ug/Kg	☼	59	66 - 110
4-Methylphenol	31	J F1 F2	3830	1940	F1	ug/Kg	☼	50	61 - 108
4-Nitroaniline	44	U F1	3830	1830	F1	ug/Kg	☼	48	50 - 110
4-Nitrophenol	62	U	7660	3870		ug/Kg	☼	50	47 - 123
Acenaphthene	28	U	3830	2040		ug/Kg	☼	53	53 - 110
Acenaphthylene	3.9	U F1	3830	2290	F1	ug/Kg	☼	60	64 - 108
Acetophenone	19	U F1 F2	3830	1810	F1	ug/Kg	☼	47	61 - 103
Anthracene	12	U F1	3830	2480	F1	ug/Kg	☼	65	67 - 114

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-208870-E-8-B MS
Client Sample ID: Matrix Spike
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695998
Prep Batch: 695949

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Atrazine	9.6	U	1530	1080		ug/Kg	☼	70	44 - 145
Benzaldehyde	17	U F2	1530	950		ug/Kg	☼	62	39 - 113
Benzo[a]anthracene	35	J F1	3830	2540	F1	ug/Kg	☼	65	67 - 115
Benzo[a]pyrene	36	J	3830	2650		ug/Kg	☼	68	63 - 108
Benzo[b]fluoranthene	61		3830	2720		ug/Kg	☼	70	64 - 116
Benzo[g,h,i]perylene	22	J F1	3830	2180	F1	ug/Kg	☼	56	61 - 113
Benzo[k]fluoranthene	18	J	3830	2790		ug/Kg	☼	72	67 - 115
Bis(2-chloroethoxy)methane	30	U F1	3830	2100	F1	ug/Kg	☼	55	62 - 107
Bis(2-chloroethyl)ether	13	U F2	3830	2340		ug/Kg	☼	61	60 - 107
Bis(2-ethylhexyl) phthalate	23	J	3830	2770		ug/Kg	☼	72	69 - 124
Butyl benzyl phthalate	18	U	3830	2770		ug/Kg	☼	72	70 - 123
Caprolactam	59	U F1	1530	786	F1	ug/Kg	☼	51	59 - 140
Carbazole	14	U F1	3830	2360	F1	ug/Kg	☼	62	64 - 113
Chrysene	50	J F1	3830	2530	F1	ug/Kg	☼	65	71 - 122
Dibenz(a,h)anthracene	16	U F1	3830	2320	F1	ug/Kg	☼	60	66 - 119
Dibenzofuran	5.3	U F1	3830	2340	F1	ug/Kg	☼	61	65 - 108
Diethyl phthalate	5.5	U F1	3830	2130	F1	ug/Kg	☼	56	63 - 109
Dimethyl phthalate	86	U F1	3830	2200	F1	ug/Kg	☼	58	65 - 109
Di-n-butyl phthalate	67	U F1	3830	2370	F1	ug/Kg	☼	62	66 - 114
Di-n-octyl phthalate	20	U	3830	2990		ug/Kg	☼	78	65 - 122
Fluoranthene	51	J F1	3830	2350	F1	ug/Kg	☼	60	64 - 113
Fluorene	5.2	U F1	3830	2320	F1	ug/Kg	☼	61	65 - 109
Hexachlorobenzene	18	U F1	3830	2230	F1	ug/Kg	☼	58	70 - 119
Hexachlorobutadiene	8.1	U F1	3830	1800	F1	ug/Kg	☼	47	62 - 109
Hexachlorocyclopentadiene	33	U	3830	1240		ug/Kg	☼	32	22 - 124
Hexachloroethane	13	U F1	3830	1780	F1	ug/Kg	☼	46	61 - 102
Indeno[1,2,3-cd]pyrene	24	J F1	3830	2370	F1	ug/Kg	☼	61	62 - 121
Isophorone	110	U F1	3830	2190	F1	ug/Kg	☼	57	63 - 107
Naphthalene	35	J F1	3830	2140	F1	ug/Kg	☼	55	63 - 106
Nitrobenzene	9.1	U F1 F2	3830	2100	F1	ug/Kg	☼	55	63 - 110
N-Nitrosodi-n-propylamine	28	U F1 F2	3830	2100	F1	ug/Kg	☼	55	61 - 108
N-Nitrosodiphenylamine	7.3	U	3830	2610		ug/Kg	☼	68	67 - 113
Pentachlorophenol	78	U	7660	3590		ug/Kg	☼	47	44 - 126
Phenanthrene	34	J F1	3830	2530	F1	ug/Kg	☼	65	66 - 112
Phenol	14	U F1 F2	3830	2190	F1	ug/Kg	☼	57	63 - 110
Pyrene	63	J	3830	2940		ug/Kg	☼	75	71 - 122

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*53*		*10 - 123*
2-Fluorobiphenyl	*64*		*25 - 104*
2-Fluorophenol (Surr)	*62*		*18 - 106*
Nitrobenzene-d5 (Surr)	*60*		*19 - 105*
Phenol-d5 (Surr)	*60*		*26 - 101*
Terphenyl-d14 (Surr)	*89*		*25 - 127*

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-208870-E-8-C MSD
Client Sample ID: Matrix Spike Duplicate
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695998
Prep Batch: 695949

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1'-Biphenyl	5.0	U F1	3830	2670		ug/Kg	☼	70	65 - 110	13	30
1,2,4,5-Tetrachlorobenzene	12	U F1	3830	2220	F1	ug/Kg	☼	58	64 - 110	2	30
2,2'-oxybis[1-chloropropane]	6.9	U *	3830	3670		ug/Kg	☼	96	49 - 109	29	30
2,3,4,6-Tetrachlorophenol	26	U F1	3830	2480		ug/Kg	☼	65	58 - 113	21	30
2,4,5-Trichlorophenol	39	U F1	3830	2700		ug/Kg	☼	71	64 - 112	21	30
2,4,6-Trichlorophenol	49	U F1	3830	2670		ug/Kg	☼	70	63 - 113	20	30
2,4-Dichlorophenol	24	U F1 F2	3830	3070	F2	ug/Kg	☼	80	66 - 113	33	30
2,4-Dimethylphenol	17	U F1 F2	3830	3210	F2	ug/Kg	☼	84	63 - 107	32	30
2,4-Dinitrophenol	190	U F1 F2	7660	3800	F2	ug/Kg	☼	50	37 - 125	48	30
2,4-Dinitrotoluene	41	U F1	3830	2730		ug/Kg	☼	71	65 - 124	18	30
2,6-Dinitrotoluene	27	U F1	3830	2890		ug/Kg	☼	76	67 - 121	19	30
2-Chloronaphthalene	18	U F1	3830	2610		ug/Kg	☼	68	65 - 109	12	30
2-Chlorophenol	14	U F1 F2	3830	3490	F2	ug/Kg	☼	91	63 - 106	48	30
2-Methylnaphthalene	11	U F1	3830	2630		ug/Kg	☼	69	64 - 108	21	30
2-Methylphenol	14	U F1 F2	3830	3710	F2	ug/Kg	☼	97	63 - 108	52	30
2-Nitroaniline	14	U F1	3830	2470		ug/Kg	☼	65	59 - 119	17	30
2-Nitrophenol	38	U F1	3830	2840		ug/Kg	☼	74	64 - 112	25	30
3,3'-Dichlorobenzidine	57	U F2	3830	919	F2	ug/Kg	☼	24	4 - 119	71	30
3-Nitroaniline	43	U	3830	1340		ug/Kg	☼	35	31 - 102	23	30
4,6-Dinitro-2-methylphenol	62	U F1	7660	4930		ug/Kg	☼	64	64 - 129	27	30
4-Bromophenyl phenyl ether	15	U F1	3830	2850		ug/Kg	☼	75	67 - 113	13	30
4-Chloro-3-methylphenol	21	U F1 F2	3830	3050	F2	ug/Kg	☼	80	66 - 114	34	30
4-Chloroaniline	27	U *	3830	2210		ug/Kg	☼	58	20 - 98	10	30
4-Chlorophenyl phenyl ether	13	U F1	3830	2710		ug/Kg	☼	71	66 - 110	18	30
4-Methylphenol	31	J F1 F2	3830	3370	F2	ug/Kg	☼	87	61 - 108	54	30
4-Nitroaniline	44	U F1	3830	1590	F1	ug/Kg	☼	42	50 - 110	14	30
4-Nitrophenol	62	U	7660	4550		ug/Kg	☼	59	47 - 123	16	30
Acenaphthene	28	U	3830	2350		ug/Kg	☼	61	53 - 110	14	30
Acenaphthylene	3.9	U F1	3830	2670		ug/Kg	☼	70	64 - 108	15	30
Acetophenone	19	U F1 F2	3830	2900	F2	ug/Kg	☼	76	61 - 103	46	30
Anthracene	12	U F1	3830	2810		ug/Kg	☼	73	67 - 114	13	30
Atrazine	9.6	U	1530	1240		ug/Kg	☼	81	44 - 145	14	30
Benzaldehyde	17	U F2	1530	1430	F2	ug/Kg	☼	94	39 - 113	41	30
Benzo[a]anthracene	35	J F1	3830	2840		ug/Kg	☼	73	67 - 115	11	30
Benzo[a]pyrene	36	J	3830	3020		ug/Kg	☼	78	63 - 108	13	30
Benzo[b]fluoranthene	61		3830	3350		ug/Kg	☼	86	64 - 116	21	30
Benzo[g,h,i]perylene	22	J F1	3830	2430		ug/Kg	☼	63	61 - 113	11	30
Benzo[k]fluoranthene	18	J	3830	3000		ug/Kg	☼	78	67 - 115	7	30
Bis(2-chloroethoxy)methane	30	U F1	3830	2770		ug/Kg	☼	72	62 - 107	28	30
Bis(2-chloroethyl)ether	13	U F2	3830	3680	F2	ug/Kg	☼	96	60 - 107	44	30
Bis(2-ethylhexyl) phthalate	23	J	3830	3030		ug/Kg	☼	79	69 - 124	9	30
Butyl benzyl phthalate	18	U	3830	3240		ug/Kg	☼	85	70 - 123	15	30
Caprolactam	59	U F1	1530	932		ug/Kg	☼	61	59 - 140	17	30
Carbazole	14	U F1	3830	2600		ug/Kg	☼	68	64 - 113	10	30
Chrysene	50	J F1	3830	2980		ug/Kg	☼	77	71 - 122	16	30
Dibenz(a,h)anthracene	16	U F1	3830	2550		ug/Kg	☼	66	66 - 119	9	30
Dibenzofuran	5.3	U F1	3830	2740		ug/Kg	☼	71	65 - 108	16	30
Diethyl phthalate	5.5	U F1	3830	2590		ug/Kg	☼	68	63 - 109	20	30

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 460-208870-E-8-C MSD
Client Sample ID: Matrix Spike Duplicate
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695998
Prep Batch: 695949

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dimethyl phthalate	86	U F1	3830	2710		ug/Kg	☼	71	65 - 109	21	30
Di-n-butyl phthalate	67	U F1	3830	2730		ug/Kg	☼	71	66 - 114	14	30
Di-n-octyl phthalate	20	U	3830	3280		ug/Kg	☼	86	65 - 122	9	30
Fluoranthene	51	J F1	3830	2560		ug/Kg	☼	65	64 - 113	9	30
Fluorene	5.2	U F1	3830	2750		ug/Kg	☼	72	65 - 109	17	30
Hexachlorobenzene	18	U F1	3830	2440	F1	ug/Kg	☼	64	70 - 119	9	30
Hexachlorobutadiene	8.1	U F1	3830	1780	F1	ug/Kg	☼	47	62 - 109	1	30
Hexachlorocyclopentadiene	33	U	3830	1250		ug/Kg	☼	33	22 - 124	1	30
Hexachloroethane	13	U F1	3830	1980	F1	ug/Kg	☼	52	61 - 102	11	30
Indeno[1,2,3-cd]pyrene	24	J F1	3830	2600		ug/Kg	☼	67	62 - 121	9	30
Isophorone	110	U F1	3830	2900		ug/Kg	☼	76	63 - 107	28	30
Naphthalene	35	J F1	3830	2490		ug/Kg	☼	64	63 - 106	15	30
Nitrobenzene	9.1	U F1 F2	3830	3120	F2	ug/Kg	☼	81	63 - 110	39	30
N-Nitrosodi-n-propylamine	28	U F1 F2	3830	3420	F2	ug/Kg	☼	89	61 - 108	48	30
N-Nitrosodiphenylamine	7.3	U	3830	2980		ug/Kg	☼	78	67 - 113	13	30
Pentachlorophenol	78	U	7660	4360		ug/Kg	☼	57	44 - 126	19	30
Phenanthrene	34	J F1	3830	2880		ug/Kg	☼	74	66 - 112	13	30
Phenol	14	U F1 F2	3830	3750	F2	ug/Kg	☼	98	63 - 110	52	30
Pyrene	63	J	3830	3590		ug/Kg	☼	92	71 - 122	20	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol (Surr)	*61*		*10 - 123*
2-Fluorobiphenyl	*68*		*25 - 104*
2-Fluorophenol (Surr)	*97*		*18 - 106*
Nitrobenzene-d5 (Surr)	*73*		*19 - 105*
Phenol-d5 (Surr)	*103*	*X*	*26 - 101*
Terphenyl-d14 (Surr)	*104*		*25 - 127*

Method: 8081B - Organochlorine Pesticides (GC)

Lab Sample ID: MB 460-696105/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696290
Prep Batch: 696105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	1.1	U	6.7	1.1	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
4,4'-DDD	1.1	U	6.7	1.1	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
4,4'-DDE	0.79	U	6.7	0.79	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
4,4'-DDE	0.79	U	6.7	0.79	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
4,4'-DDT	1.2	U	6.7	1.2	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
4,4'-DDT	1.2	U	6.7	1.2	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Aldrin	1.0	U	6.7	1.0	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Aldrin	1.0	U	6.7	1.0	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
alpha-BHC	0.68	U	2.0	0.68	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
alpha-BHC	0.68	U	2.0	0.68	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
beta-BHC	0.75	U	2.0	0.75	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
beta-BHC	0.75	U	2.0	0.75	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Chlordane (technical)	16	U	67	16	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Chlordane (technical)	16	U	67	16	ug/Kg		05/21/20 10:17	05/22/20 05:10	1

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: MB 460-696105/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696290
Prep Batch: 696105

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
delta-BHC	0.41	U	2.0	0.41	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
delta-BHC	0.41	U	2.0	0.41	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Dieldrin	0.87	U	2.0	0.87	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Dieldrin	0.87	U	2.0	0.87	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Endosulfan I	1.0	U	6.7	1.0	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Endosulfan I	1.0	U	6.7	1.0	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Endosulfan II	1.7	U	6.7	1.7	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Endosulfan II	1.7	U	6.7	1.7	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Endosulfan sulfate	0.84	U	6.7	0.84	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Endosulfan sulfate	0.84	U	6.7	0.84	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Endrin	0.96	U	6.7	0.96	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Endrin	0.96	U	6.7	0.96	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Endrin aldehyde	1.6	U	6.7	1.6	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Endrin aldehyde	1.6	U	6.7	1.6	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Endrin ketone	1.3	U	6.7	1.3	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Endrin ketone	1.3	U	6.7	1.3	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
gamma-BHC (Lindane)	0.62	U	2.0	0.62	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
gamma-BHC (Lindane)	0.62	U	2.0	0.62	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Heptachlor	0.79	U	6.7	0.79	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Heptachlor	0.79	U	6.7	0.79	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Heptachlor epoxide	1.0	U	6.7	1.0	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Heptachlor epoxide	1.0	U	6.7	1.0	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Methoxychlor	1.5	U	6.7	1.5	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Methoxychlor	1.5	U	6.7	1.5	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Toxaphene	24	U	67	24	ug/Kg		05/21/20 10:17	05/22/20 05:10	1
Toxaphene	24	U	67	24	ug/Kg		05/21/20 10:17	05/22/20 05:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*100*		*28 - 148*	*05/21/20 10:17*	*05/22/20 05:10*	*1*
DCB Decachlorobiphenyl	*97*		*28 - 148*	*05/21/20 10:17*	*05/22/20 05:10*	*1*
Tetrachloro-m-xylene	*97*		*34 - 118*	*05/21/20 10:17*	*05/22/20 05:10*	*1*
Tetrachloro-m-xylene	*95*		*34 - 118*	*05/21/20 10:17*	*05/22/20 05:10*	*1*

Lab Sample ID: LCS 460-696105/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696290
Prep Batch: 696105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
4,4'-DDD	133	153		ug/Kg		115	70 - 140
4,4'-DDD	133	139		ug/Kg		104	70 - 140
4,4'-DDE	133	142		ug/Kg		106	71 - 137
4,4'-DDE	133	129		ug/Kg		97	71 - 137
4,4'-DDT	133	116		ug/Kg		87	63 - 131
4,4'-DDT	133	107		ug/Kg		80	63 - 131
Aldrin	133	138		ug/Kg		103	74 - 140
Aldrin	133	125		ug/Kg		94	74 - 140
alpha-BHC	133	139		ug/Kg		104	72 - 142
alpha-BHC	133	129		ug/Kg		96	72 - 142

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 460-696105/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696290
Prep Batch: 696105

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
beta-BHC	133	147		ug/Kg		110	65 - 137
beta-BHC	133	138		ug/Kg		104	65 - 137
delta-BHC	133	141		ug/Kg		106	70 - 143
delta-BHC	133	129		ug/Kg		97	70 - 143
Dieldrin	133	141		ug/Kg		106	70 - 135
Dieldrin	133	127		ug/Kg		95	70 - 135
Endosulfan I	133	137		ug/Kg		103	68 - 135
Endosulfan I	133	124		ug/Kg		93	68 - 135
Endosulfan II	133	139		ug/Kg		104	64 - 130
Endosulfan II	133	127		ug/Kg		95	64 - 130
Endosulfan sulfate	133	138		ug/Kg		103	66 - 143
Endosulfan sulfate	133	127		ug/Kg		96	66 - 143
Endrin	133	135		ug/Kg		101	68 - 136
Endrin	133	122		ug/Kg		92	68 - 136
Endrin aldehyde	133	135		ug/Kg		101	68 - 132
Endrin aldehyde	133	122		ug/Kg		92	68 - 132
Endrin ketone	133	139		ug/Kg		104	60 - 150
Endrin ketone	133	126		ug/Kg		94	60 - 150
gamma-BHC (Lindane)	133	140		ug/Kg		105	70 - 134
gamma-BHC (Lindane)	133	129		ug/Kg		97	70 - 134
Heptachlor	133	130		ug/Kg		97	69 - 134
Heptachlor	133	118		ug/Kg		88	69 - 134
Heptachlor epoxide	133	137		ug/Kg		103	70 - 135
Heptachlor epoxide	133	141		ug/Kg		106	70 - 135
Methoxychlor	133	109		ug/Kg		82	57 - 135
Methoxychlor	133	103		ug/Kg		78	57 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*100*		*28 - 148*
DCB Decachlorobiphenyl	*97*		*28 - 148*
Tetrachloro-m-xylene	*96*		*34 - 118*
Tetrachloro-m-xylene	*100*		*34 - 118*

Lab Sample ID: LCSD 460-696105/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696290
Prep Batch: 696105

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	133	156		ug/Kg		117	70 - 140	2	30
4,4'-DDD	133	141		ug/Kg		106	70 - 140	2	30
4,4'-DDE	133	144		ug/Kg		108	71 - 137	2	30
4,4'-DDE	133	131		ug/Kg		99	71 - 137	2	30
4,4'-DDT	133	116		ug/Kg		87	63 - 131	1	30
4,4'-DDT	133	107		ug/Kg		80	63 - 131	0	30
Aldrin	133	140		ug/Kg		105	74 - 140	2	30
Aldrin	133	127		ug/Kg		95	74 - 140	2	30
alpha-BHC	133	141		ug/Kg		106	72 - 142	2	30
alpha-BHC	133	131		ug/Kg		98	72 - 142	1	30

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 460-696105/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696290
Prep Batch: 696105

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
beta-BHC	133	149		ug/Kg		112	65 - 137	2	30
beta-BHC	133	140		ug/Kg		105	65 - 137	1	30
delta-BHC	133	144		ug/Kg		108	70 - 143	2	30
delta-BHC	133	131		ug/Kg		99	70 - 143	2	30
Dieldrin	133	143		ug/Kg		108	70 - 135	2	30
Dieldrin	133	129		ug/Kg		97	70 - 135	2	30
Endosulfan I	133	139		ug/Kg		105	68 - 135	1	30
Endosulfan I	133	126		ug/Kg		95	68 - 135	2	30
Endosulfan II	133	141		ug/Kg		106	64 - 130	2	30
Endosulfan II	133	129		ug/Kg		96	64 - 130	2	30
Endosulfan sulfate	133	140		ug/Kg		105	66 - 143	2	30
Endosulfan sulfate	133	129		ug/Kg		97	66 - 143	1	30
Endrin	133	135		ug/Kg		101	68 - 136	0	30
Endrin	133	122		ug/Kg		92	68 - 136	0	30
Endrin aldehyde	133	138		ug/Kg		104	68 - 132	2	30
Endrin aldehyde	133	125		ug/Kg		94	68 - 132	2	30
Endrin ketone	133	142		ug/Kg		106	60 - 150	2	30
Endrin ketone	133	128		ug/Kg		96	60 - 150	2	30
gamma-BHC (Lindane)	133	143		ug/Kg		107	70 - 134	2	30
gamma-BHC (Lindane)	133	131		ug/Kg		99	70 - 134	2	30
Heptachlor	133	132		ug/Kg		99	69 - 134	2	30
Heptachlor	133	120		ug/Kg		90	69 - 134	1	30
Heptachlor epoxide	133	139		ug/Kg		105	70 - 135	2	30
Heptachlor epoxide	133	143		ug/Kg		107	70 - 135	2	30
Methoxychlor	133	109		ug/Kg		82	57 - 135	0	30
Methoxychlor	133	104		ug/Kg		78	57 - 135	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*102*		*28 - 148*
DCB Decachlorobiphenyl	*99*		*28 - 148*
Tetrachloro-m-xylene	*99*		*34 - 118*
Tetrachloro-m-xylene	*99*		*34 - 118*

Lab Sample ID: 460-209218-F-2-F MS
Client Sample ID: Matrix Spike
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696290
Prep Batch: 696105

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
4,4'-DDD	1.2	U	143	128		ug/Kg	☼	90	70 - 140		
4,4'-DDD	1.2	U	143	122		ug/Kg	☼	85	70 - 140		
4,4'-DDE	0.85	U	143	119		ug/Kg	☼	83	71 - 137		
4,4'-DDE	0.85	U	143	113		ug/Kg	☼	79	71 - 137		
4,4'-DDT	1.3	U	143	103		ug/Kg	☼	72	63 - 131		
4,4'-DDT	1.3	U	143	99.5		ug/Kg	☼	70	63 - 131		
Aldrin	1.1	U	143	112		ug/Kg	☼	78	74 - 140		
Aldrin	1.1	U	143	105		ug/Kg	☼	74	74 - 140		
alpha-BHC	0.73	U	143	112		ug/Kg	☼	78	72 - 142		
alpha-BHC	0.73	U	143	106		ug/Kg	☼	74	72 - 142		

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-209218-F-2-F MS
Client Sample ID: Matrix Spike
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696290
Prep Batch: 696105

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
beta-BHC	0.80	U	143	122		ug/Kg	☼	85	65 - 137
beta-BHC	0.80	U	143	117		ug/Kg	☼	82	65 - 137
delta-BHC	0.44	U	143	115		ug/Kg	☼	81	70 - 143
delta-BHC	0.44	U	143	109		ug/Kg	☼	76	70 - 143
Dieldrin	0.93	U	143	118		ug/Kg	☼	83	70 - 135
Dieldrin	0.93	U	143	111		ug/Kg	☼	78	70 - 135
Endosulfan I	1.1	U	143	114		ug/Kg	☼	80	68 - 135
Endosulfan I	1.1	U	143	108		ug/Kg	☼	75	68 - 135
Endosulfan II	1.8	U	143	117		ug/Kg	☼	82	64 - 130
Endosulfan II	1.8	U	143	111		ug/Kg	☼	78	64 - 130
Endosulfan sulfate	0.90	U	143	105		ug/Kg	☼	73	66 - 143
Endosulfan sulfate	0.90	U	143	102		ug/Kg	☼	71	66 - 143
Endrin	1.0	U	143	125		ug/Kg	☼	88	68 - 136
Endrin	1.0	U	143	117		ug/Kg	☼	82	68 - 136
Endrin aldehyde	1.7	U F1	143	92.6	F1	ug/Kg	☼	65	68 - 132
Endrin aldehyde	1.7	U F1	143	88.4	F1	ug/Kg	☼	62	68 - 132
Endrin ketone	1.4	U	143	112		ug/Kg	☼	78	60 - 150
Endrin ketone	1.4	U	143	105		ug/Kg	☼	73	60 - 150
gamma-BHC (Lindane)	0.67	U	143	113		ug/Kg	☼	79	70 - 134
gamma-BHC (Lindane)	0.67	U	143	109		ug/Kg	☼	76	70 - 134
Heptachlor	0.85	U	143	107		ug/Kg	☼	75	69 - 134
Heptachlor	0.85	U	143	101		ug/Kg	☼	70	69 - 134
Heptachlor epoxide	1.1	U	143	113		ug/Kg	☼	79	70 - 135
Heptachlor epoxide	1.1	U	143	122		ug/Kg	☼	85	70 - 135
Methoxychlor	1.6	U	143	98.4		ug/Kg	☼	69	57 - 135
Methoxychlor	1.6	U	143	97.9		ug/Kg	☼	68	57 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*86*		*28 - 148*
DCB Decachlorobiphenyl	*87*		*28 - 148*
Tetrachloro-m-xylene	*76*		*34 - 118*
Tetrachloro-m-xylene	*76*		*34 - 118*

Lab Sample ID: 460-209218-F-2-G MSD
Client Sample ID: Matrix Spike Duplicate
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696290
Prep Batch: 696105

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4,4'-DDD	1.2	U	143	132		ug/Kg	☼	92	70 - 140	3	30
4,4'-DDD	1.2	U	143	125		ug/Kg	☼	87	70 - 140	2	30
4,4'-DDE	0.85	U	143	123		ug/Kg	☼	86	71 - 137	3	30
4,4'-DDE	0.85	U	143	114		ug/Kg	☼	79	71 - 137	1	30
4,4'-DDT	1.3	U	143	107		ug/Kg	☼	75	63 - 131	4	30
4,4'-DDT	1.3	U	143	103		ug/Kg	☼	72	63 - 131	3	30
Aldrin	1.1	U	143	116		ug/Kg	☼	81	74 - 140	3	30
Aldrin	1.1	U	143	108		ug/Kg	☼	75	74 - 140	3	30
alpha-BHC	0.73	U	143	115		ug/Kg	☼	81	72 - 142	3	30
alpha-BHC	0.73	U	143	109		ug/Kg	☼	76	72 - 142	3	30

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 460-209218-F-2-G MSD
Client Sample ID: Matrix Spike Duplicate
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696290
Prep Batch: 696105

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
beta-BHC	0.80	U	143	125		ug/Kg	☼	87	65 - 137	2	30
beta-BHC	0.80	U	143	120		ug/Kg	☼	84	65 - 137	3	30
delta-BHC	0.44	U	143	117		ug/Kg	☼	82	70 - 143	2	30
delta-BHC	0.44	U	143	111		ug/Kg	☼	78	70 - 143	2	30
Dieldrin	0.93	U	143	122		ug/Kg	☼	85	70 - 135	3	30
Dieldrin	0.93	U	143	114		ug/Kg	☼	80	70 - 135	3	30
Endosulfan I	1.1	U	143	118		ug/Kg	☼	82	68 - 135	3	30
Endosulfan I	1.1	U	143	110		ug/Kg	☼	77	68 - 135	2	30
Endosulfan II	1.8	U	143	120		ug/Kg	☼	84	64 - 130	2	30
Endosulfan II	1.8	U	143	113		ug/Kg	☼	79	64 - 130	2	30
Endosulfan sulfate	0.90	U	143	110		ug/Kg	☼	77	66 - 143	4	30
Endosulfan sulfate	0.90	U	143	106		ug/Kg	☼	74	66 - 143	4	30
Endrin	1.0	U	143	128		ug/Kg	☼	90	68 - 136	2	30
Endrin	1.0	U	143	120		ug/Kg	☼	84	68 - 136	2	30
Endrin aldehyde	1.7	U F1	143	97.3		ug/Kg	☼	68	68 - 132	5	30
Endrin aldehyde	1.7	U F1	143	92.7	F1	ug/Kg	☼	65	68 - 132	5	30
Endrin ketone	1.4	U	143	115		ug/Kg	☼	80	60 - 150	3	30
Endrin ketone	1.4	U	143	108		ug/Kg	☼	75	60 - 150	3	30
gamma-BHC (Lindane)	0.67	U	143	117		ug/Kg	☼	82	70 - 134	3	30
gamma-BHC (Lindane)	0.67	U	143	112		ug/Kg	☼	78	70 - 134	3	30
Heptachlor	0.85	U	143	110		ug/Kg	☼	77	69 - 134	3	30
Heptachlor	0.85	U	143	104		ug/Kg	☼	72	69 - 134	3	30
Heptachlor epoxide	1.1	U	143	117		ug/Kg	☼	82	70 - 135	3	30
Heptachlor epoxide	1.1	U	143	124		ug/Kg	☼	87	70 - 135	2	30
Methoxychlor	1.6	U	143	102		ug/Kg	☼	71	57 - 135	4	30
Methoxychlor	1.6	U	143	101		ug/Kg	☼	71	57 - 135	3	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*88*		*28 - 148*
DCB Decachlorobiphenyl	*89*		*28 - 148*
Tetrachloro-m-xylene	*77*		*34 - 118*
Tetrachloro-m-xylene	*80*		*34 - 118*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 460-696100/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696317
Prep Batch: 696100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	8.9	U	67	8.9	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1016	8.9	U	67	8.9	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1221	8.9	U	67	8.9	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1221	8.9	U	67	8.9	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1232	8.9	U	67	8.9	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1232	8.9	U	67	8.9	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1242	8.9	U	67	8.9	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1242	8.9	U	67	8.9	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1248	8.9	U	67	8.9	ug/Kg		05/21/20 09:47	05/22/20 07:36	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 460-696100/1-A
Client Sample ID: Method Blank
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696317
Prep Batch: 696100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1248	8.9	U	67	8.9	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1254	9.2	U	67	9.2	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1254	9.2	U	67	9.2	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1260	9.2	U	67	9.2	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1260	9.2	U	67	9.2	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor-1262	9.2	U	67	9.2	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor-1262	9.2	U	67	9.2	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1268	9.2	U	67	9.2	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Aroclor 1268	9.2	U	67	9.2	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Polychlorinated biphenyls, Total	9.2	U	67	9.2	ug/Kg		05/21/20 09:47	05/22/20 07:36	1
Polychlorinated biphenyls, Total	9.2	U	67	9.2	ug/Kg		05/21/20 09:47	05/22/20 07:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*71*		*10 - 150*	*05/21/20 09:47*	*05/22/20 07:36*	*1*
DCB Decachlorobiphenyl	*95*		*10 - 150*	*05/21/20 09:47*	*05/22/20 07:36*	*1*
Tetrachloro-m-xylene	*79*		*58 - 145*	*05/21/20 09:47*	*05/22/20 07:36*	*1*
Tetrachloro-m-xylene	*91*		*58 - 145*	*05/21/20 09:47*	*05/22/20 07:36*	*1*

Lab Sample ID: LCS 460-696100/2-A
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696317
Prep Batch: 696100

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	333	274		ug/Kg		82	65 - 133
Aroclor 1016	333	345		ug/Kg		104	65 - 133
Aroclor 1260	333	251		ug/Kg		75	71 - 150
Aroclor 1260	333	354		ug/Kg		106	71 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*70*		*10 - 150*
DCB Decachlorobiphenyl	*94*		*10 - 150*
Tetrachloro-m-xylene	*80*		*58 - 145*
Tetrachloro-m-xylene	*92*		*58 - 145*

Lab Sample ID: LCSD 460-696100/3-A
Client Sample ID: Lab Control Sample Dup
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696317
Prep Batch: 696100

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	333	276		ug/Kg		83	65 - 133	1	30
Aroclor 1016	333	341		ug/Kg		102	65 - 133	1	30
Aroclor 1260	333	259		ug/Kg		78	71 - 150	3	30
Aroclor 1260	333	344		ug/Kg		103	71 - 150	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*70*		*10 - 150*
DCB Decachlorobiphenyl	*95*		*10 - 150*
Tetrachloro-m-xylene	*80*		*58 - 145*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCSD 460-696100/3-A
Matrix: Solid
Analysis Batch: 696317

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 696100

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*93*		*58 - 145*

Lab Sample ID: 460-209218-F-2-C MS
Matrix: Solid
Analysis Batch: 696317

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 696100

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	9.5	U	358	300		ug/Kg	☼	84	65 - 133
Aroclor 1016	9.5	U	358	390		ug/Kg	☼	109	65 - 133
Aroclor 1260	9.9	U	358	292		ug/Kg	☼	82	71 - 150
Aroclor 1260	9.9	U	358	406		ug/Kg	☼	114	71 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*81*		*10 - 150*
DCB Decachlorobiphenyl	*114*		*10 - 150*
Tetrachloro-m-xylene	*87*		*58 - 145*
Tetrachloro-m-xylene	*105*		*58 - 145*

Lab Sample ID: 460-209218-F-2-D MSD
Matrix: Solid
Analysis Batch: 696317

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 696100

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aroclor 1016	9.5	U	358	281		ug/Kg	☼	79	65 - 133	6	30
Aroclor 1016	9.5	U	358	371		ug/Kg	☼	104	65 - 133	5	30
Aroclor 1260	9.9	U	358	270		ug/Kg	☼	76	71 - 150	8	30
Aroclor 1260	9.9	U	358	401		ug/Kg	☼	112	71 - 150	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*76*		*10 - 150*
DCB Decachlorobiphenyl	*109*		*10 - 150*
Tetrachloro-m-xylene	*83*		*58 - 145*
Tetrachloro-m-xylene	*102*		*58 - 145*

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 460-695734/1-A ^2
Matrix: Solid
Analysis Batch: 695894

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 695734

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.1	U	2.0	1.1	mg/Kg		05/20/20 04:14	05/20/20 15:01	2
Arsenic	0.62	U	3.0	0.62	mg/Kg		05/20/20 04:14	05/20/20 15:01	2
Barium	3.9	U	40.0	3.9	mg/Kg		05/20/20 04:14	05/20/20 15:01	2
Cadmium	0.069	U	0.80	0.069	mg/Kg		05/20/20 04:14	05/20/20 15:01	2
Chromium	1.4	U	2.0	1.4	mg/Kg		05/20/20 04:14	05/20/20 15:01	2
Lead	0.32	U	2.0	0.32	mg/Kg		05/20/20 04:14	05/20/20 15:01	2
Selenium	0.68	U	4.0	0.68	mg/Kg		05/20/20 04:14	05/20/20 15:01	2

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCSSRM 460-695734/2-A ^2
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695894
Prep Batch: 695734

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	40.3	40.06		mg/Kg		99.4	80.6 - 119.4
Arsenic	95.5	100.6		mg/Kg		105.3	82.8 - 117.3
Barium	300	320.0		mg/Kg		106.7	82.3 - 117.7
Cadmium	135	143.8		mg/Kg		106.5	83.0 - 117.8
Chromium	147	153.9		mg/Kg		104.7	82.3 - 117.7
Lead	92.3	102.6		mg/Kg		111.2	83.1 - 117.0
Selenium	42.0	43.60		mg/Kg		103.8	79.5 - 120.5

Lab Sample ID: 460-209228-E-2-C MS ^2
Client Sample ID: Matrix Spike
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695894
Prep Batch: 695734

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	1.3	U	5.73	4.81		mg/Kg	☼	84	75 - 125
Arsenic	2.1	J	229	204.4		mg/Kg	☼	88	75 - 125
Barium	9.6	J	229	231.6		mg/Kg	☼	97	75 - 125
Cadmium	0.079	U	5.73	5.44		mg/Kg	☼	95	75 - 125
Chromium	7.6		22.9	31.38		mg/Kg	☼	104	75 - 125
Lead	4.9		57.3	60.54		mg/Kg	☼	97	75 - 125
Selenium	0.78	U	229	199.2		mg/Kg	☼	87	75 - 125

Lab Sample ID: 460-209228-E-2-B DU ^2
Client Sample ID: Duplicate
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 695894
Prep Batch: 695734

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Silver	1.3	U	1.3	U	mg/Kg	☼	NC	20
Arsenic	2.1	J	2.23	J	mg/Kg	☼	4	20
Barium	9.6	J	10.88	J	mg/Kg	☼	12	20
Cadmium	0.079	U	0.079	U	mg/Kg	☼	NC	20
Chromium	7.6		8.13		mg/Kg	☼	6	20
Lead	4.9		4.58		mg/Kg	☼	8	20
Selenium	0.78	U	0.78	U	mg/Kg	☼	NC	20

Lab Sample ID: LRC 460-695894/14
Client Sample ID: Lab Control Sample
Matrix: Solid
Analysis Batch: 695894

Analyte	Spike Added	LRC Result	LRC Qualifier	Unit	D	%Rec	%Rec. Limits
Barium	30000	29130		ug/L		97	90 - 110
Chromium	15000	13990		ug/L		93	90 - 110
Lead	50000	49250		ug/L		99	90 - 110

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LRC 460-695894/15 — **Client Sample ID: Lab Control Sample**
Matrix: Solid
Analysis Batch: 695894

Analyte	Spike Added	LRC Result	LRC Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	10000	9464		ug/L		95	90 - 110
Selenium	3000	2769		ug/L		92	90 - 110

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 460-696019/10-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 696118 — **Prep Batch: 696019**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0040	U	0.017	0.0040	mg/Kg		05/21/20 03:19	05/21/20 07:04	1

Lab Sample ID: LCSSRM 460-696019/11-A ^40 — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 696118 — **Prep Batch: 696019**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	18.4	17.83		mg/Kg		96.9	60.9 - 138.6

Lab Sample ID: 460-208710-A-1-I MS — **Client Sample ID: Matrix Spike**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 696118 — **Prep Batch: 696019**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.0041	U	0.0861	0.0932		mg/Kg	☼	108	80 - 120

Lab Sample ID: 460-208710-A-1-H DU — **Client Sample ID: Duplicate**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 696118 — **Prep Batch: 696019**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.0041	U	0.0041	U	mg/Kg	☼	NC	20

Method: 9016 - Cyanide, Free

Lab Sample ID: MB 460-696728/1-B — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 696754 — **Prep Batch: 696729**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	0.31	U	1.1	0.31	mg/Kg		05/24/20 09:30	05/24/20 17:02	1

Lab Sample ID: LCS 460-696728/2-B — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 696754 — **Prep Batch: 696729**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Free	25.0	21.58		mg/Kg		86	79 - 106

Method: 9016 - Cyanide, Free (Continued)

Lab Sample ID: 460-209046-A-3-F MS
Client Sample ID: Matrix Spike
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696754
Prep Batch: 696729

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Free	0.38	U	30.9	29.35		mg/Kg	☼	95	79 - 106		

Lab Sample ID: 460-209046-A-3-G MSD
Client Sample ID: Matrix Spike Duplicate
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696754
Prep Batch: 696729

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cyanide, Free	0.38	U	30.9	28.37		mg/Kg	☼	92	79 - 106	3	19

Lab Sample ID: DLCK 460-696754/10
Client Sample ID: Lab Control Sample
Matrix: Solid
Prep Type: Total/NA
Analysis Batch: 696754

Analyte			Spike Added	DLCK Result	DLCK Qualifier	Unit	D	%Rec	%Rec. Limits		
Cyanide, Free			2.00	1.5	U	ug/L		58	50 - 150		

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate recovery exceeds control limits

GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate recovery exceeds control limits

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

General Chemistry

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

GC/MS VOA

Prep Batch: 695784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	5035	
LB3 460-695784/1-A	Method Blank	Total/NA	Solid	5035	

Analysis Batch: 695965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LB3 460-695784/1-A	Method Blank	Total/NA	Solid	8260C	695784
MB 460-695965/7	Method Blank	Total/NA	Solid	8260C	
LCS 460-695965/3	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 460-695965/4	Lab Control Sample Dup	Total/NA	Solid	8260C	

Analysis Batch: 696187

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	8260C	695784
MB 460-696187/9	Method Blank	Total/NA	Solid	8260C	
LCS 460-696187/6	Lab Control Sample	Total/NA	Solid	8260C	
LCSD 460-696187/7	Lab Control Sample Dup	Total/NA	Solid	8260C	

GC/MS Semi VOA

Prep Batch: 695949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	3546	
MB 460-695949/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-695949/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-695949/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-208870-E-8-B MS	Matrix Spike	Total/NA	Solid	3546	
460-208870-E-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 695998

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 460-695949/1-A	Method Blank	Total/NA	Solid	8270D	695949
LCS 460-695949/2-A	Lab Control Sample	Total/NA	Solid	8270D	695949
LCSD 460-695949/3-A	Lab Control Sample Dup	Total/NA	Solid	8270D	695949
460-208870-E-8-B MS	Matrix Spike	Total/NA	Solid	8270D	695949
460-208870-E-8-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8270D	695949

Analysis Batch: 696064

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	8270D	695949

GC Semi VOA

Prep Batch: 696100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	3546	
MB 460-696100/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-696100/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-696100/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-209218-F-2-C MS	Matrix Spike	Total/NA	Solid	3546	
460-209218-F-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

QC Association Summary

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

GC Semi VOA

Prep Batch: 696105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	3546	
MB 460-696105/1-A	Method Blank	Total/NA	Solid	3546	
LCS 460-696105/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 460-696105/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
460-209218-F-2-F MS	Matrix Spike	Total/NA	Solid	3546	
460-209218-F-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	3546	

Analysis Batch: 696290

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	8081B	696105
MB 460-696105/1-A	Method Blank	Total/NA	Solid	8081B	696105
LCS 460-696105/2-A	Lab Control Sample	Total/NA	Solid	8081B	696105
LCSD 460-696105/3-A	Lab Control Sample Dup	Total/NA	Solid	8081B	696105
460-209218-F-2-F MS	Matrix Spike	Total/NA	Solid	8081B	696105
460-209218-F-2-G MSD	Matrix Spike Duplicate	Total/NA	Solid	8081B	696105

Analysis Batch: 696317

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	8082A	696100
MB 460-696100/1-A	Method Blank	Total/NA	Solid	8082A	696100
LCS 460-696100/2-A	Lab Control Sample	Total/NA	Solid	8082A	696100
LCSD 460-696100/3-A	Lab Control Sample Dup	Total/NA	Solid	8082A	696100
460-209218-F-2-C MS	Matrix Spike	Total/NA	Solid	8082A	696100
460-209218-F-2-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8082A	696100

Metals

Prep Batch: 695734

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	3050B	
MB 460-695734/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCSSRM 460-695734/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	
460-209228-E-2-C MS ^2	Matrix Spike	Total/NA	Solid	3050B	
460-209228-E-2-B DU ^2	Duplicate	Total/NA	Solid	3050B	

Analysis Batch: 695894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	6010D	695734
MB 460-695734/1-A ^2	Method Blank	Total/NA	Solid	6010D	695734
LCSSRM 460-695734/2-A ^2	Lab Control Sample	Total/NA	Solid	6010D	695734
LRC 460-695894/14	Lab Control Sample		Solid	6010D	
LRC 460-695894/15	Lab Control Sample		Solid	6010D	
460-209228-E-2-C MS ^2	Matrix Spike	Total/NA	Solid	6010D	695734
460-209228-E-2-B DU ^2	Duplicate	Total/NA	Solid	6010D	695734

Prep Batch: 696019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	7471B	
MB 460-696019/10-A	Method Blank	Total/NA	Solid	7471B	
LCSSRM 460-696019/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	
460-208710-A-1-I MS	Matrix Spike	Total/NA	Solid	7471B	

Metals (Continued)

Prep Batch: 696019 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-208710-A-1-H DU	Duplicate	Total/NA	Solid	7471B	

Analysis Batch: 696118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	7471B	696019
MB 460-696019/10-A	Method Blank	Total/NA	Solid	7471B	696019
LCSSRM 460-696019/11-A ^	Lab Control Sample	Total/NA	Solid	7471B	696019
460-208710-A-1-I MS	Matrix Spike	Total/NA	Solid	7471B	696019
460-208710-A-1-H DU	Duplicate	Total/NA	Solid	7471B	696019

General Chemistry

Analysis Batch: 695870

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	Moisture	
460-209093-B-5 MS	Matrix Spike	Total/NA	Solid	Moisture	
460-209093-B-5 MSD	Matrix Spike Duplicate	Total/NA	Solid	Moisture	
460-209156-A-4 DU	Duplicate	Total/NA	Solid	Moisture	

Leach Batch: 696728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	9016	
MB 460-696728/1-B	Method Blank	Total/NA	Solid	9016	
LCS 460-696728/2-B	Lab Control Sample	Total/NA	Solid	9016	
460-209046-A-3-F MS	Matrix Spike	Total/NA	Solid	9016	
460-209046-A-3-G MSD	Matrix Spike Duplicate	Total/NA	Solid	9016	

Prep Batch: 696729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	9016	696728
MB 460-696728/1-B	Method Blank	Total/NA	Solid	9016	696728
LCS 460-696728/2-B	Lab Control Sample	Total/NA	Solid	9016	696728
460-209046-A-3-F MS	Matrix Spike	Total/NA	Solid	9016	696728
460-209046-A-3-G MSD	Matrix Spike Duplicate	Total/NA	Solid	9016	696728

Analysis Batch: 696754

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
460-209199-1	EXC_01_051920	Total/NA	Solid	9016	696729
MB 460-696728/1-B	Method Blank	Total/NA	Solid	9016	696729
DLCK 460-696754/10	Lab Control Sample	Total/NA	Solid	9016	
LCS 460-696728/2-B	Lab Control Sample	Total/NA	Solid	9016	696729
460-209046-A-3-F MS	Matrix Spike	Total/NA	Solid	9016	696729
460-209046-A-3-G MSD	Matrix Spike Duplicate	Total/NA	Solid	9016	696729

Lab Chronicle

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

Client Sample ID: EXC_01_051920

Lab Sample ID: 460-209199-1

Date Collected: 05/19/20 07:00

Matrix: Solid

Date Received: 05/19/20 17:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	695870	05/20/20 13:00	MMC	TAL EDI

Client Sample ID: EXC_01_051920

Lab Sample ID: 460-209199-1

Date Collected: 05/19/20 07:00

Matrix: Solid

Date Received: 05/19/20 17:30

Percent Solids: 76.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			695784	05/20/20 08:36	DBM	TAL EDI
Total/NA	Analysis	8260C		1	696187	05/21/20 22:05	VBP	TAL EDI
Total/NA	Prep	3546			695949	05/20/20 17:45	ABA	TAL EDI
Total/NA	Analysis	8270D		1	696064	05/21/20 17:58	DAN	TAL EDI
Total/NA	Prep	3546			696105	05/21/20 10:17	ZXB	TAL EDI
Total/NA	Analysis	8081B		1	696290	05/22/20 05:23	FAM	TAL EDI
Total/NA	Prep	3546			696100	05/21/20 09:47	ZXB	TAL EDI
Total/NA	Analysis	8082A		1	696317	05/22/20 08:26	KMH	TAL EDI
Total/NA	Prep	3050B			695734	05/20/20 04:14	GMC	TAL EDI
Total/NA	Analysis	6010D		2	695894	05/20/20 16:16	CDC	TAL EDI
Total/NA	Prep	7471B			696019	05/21/20 03:19	TJS	TAL EDI
Total/NA	Analysis	7471B		1	696118	05/21/20 07:14	TJS	TAL EDI
Total/NA	Leach	9016			696728	05/23/20 09:00	EMS	TAL EDI
Total/NA	Prep	9016			696729	05/24/20 09:30	EMS	TAL EDI
Total/NA	Analysis	9016		1	696754	05/24/20 17:02	EMS	TAL EDI

Laboratory References:

TAL EDI = Eurofins TestAmerica, Edison, 777 New Durham Road, Edison, NJ 08817, TEL (732)549-3900

Accreditation/Certification Summary

Client: AECOM
Job ID: 460-209199-1
Project/Site: NATIONAL GRID - INWOOD

Laboratory: Eurofins TestAmerica, Edison

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Connecticut	State	PH-0200	09-30-20
DE Haz. Subst. Cleanup Act (HSCA)	State	<cert No.>	12-31-21
Georgia	State	12028 (NJ)	06-30-20
Massachusetts	State	M-NJ312	06-30-20
New Jersey	NELAP	12028	06-30-20
New York	NELAP	11452	04-01-21
Pennsylvania	NELAP	68-00522	02-28-21
Rhode Island	State	LAO00132	12-31-20
USDA	US Federal Programs	P330-18-00135	05-03-21

Chain of Custody Record 455165

eurofins | Environment Testing TestAmerica

Address: NASSAU AVE / SHERIDAN BLVD

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

TAL-8210

Client Contact	Project Manager: S. MANTRI	Site Contact: S. LIBERT	Date: 5/19/20	COC No: 007
Company Name: AECOM	Tel/Email: 845 337 1867	Lab Contact: J. GILMORE	Carrier: TA COURIER	1 of 1 COCs
Address: 125 BROAD ST	Analysis Turnaround Time			Sampler: S. LIBERT
City/State/Zip: NY, NY 10004	☐ CALENDAR DAYS ☑ WORKING DAYS			For Lab Use Only:
Phone: 845 337 1867	TAT if different from Below 3			Walk-in Client:
Fax: –	☐ 2 weeks			Lab Sampling:
Project Name: NATIONAL GRID - INWOOD	☐ 1 week			
Site: INWOOD, NY	☐ 2 days			Job / SDG No.:
PO # 60137359	☐ 1 day			209199

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	8260C	9056, 7471B, 6010D, 8270D	PEST / PCB	Sample Specific Notes:
~~SL~~	~~5/18/20~~	~~1500~~		~~SO~~		~~–~~	~~N~~	~~4~~	~~1~~	~~1~~	
EXC_01_051920	5/19/20	0700	C	SO	6		N	4	1	1	1

SHORT HOLD

460-209199 Chain of Custody

Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

☐ Return to Client ☑ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments:
CONFIRM TAT + ANAVYSES w/ S. MANTRI

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No.: | Cooler Temp. (°C): Obs'd: _____ Corr'd: _____ | Therm ID No.: _____

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Steve Libert	AECOM	5/19/20 1051	[illegible]	[illegible]	5/19/20 1051
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[illegible]	[illegible]	5/19/20 1600	[illegible]	[illegible]	5/19/20 [illegible]
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:
[illegible]	[illegible]	5/19/20 1730	[illegible] M. Taylor	Eurofins	5/19/20 1730

3-9 5.R11

Eurofins TestAmerica Edison
Receipt Temperature and pH Log

Job Number: 209199

Number of Coolers: 1 IR Gun # 1

Cooler Temperatures

	RAW	CORRECTED		RAW	CORRECTED		RAW	CORRECTED
Cooler #1:	3.9 °C	3.9 °C	Cooler #4:	°C	°C	Cooler #7:	°C	°C
Cooler #2:	°C	°C	Cooler #5:	°C	°C	Cooler #8:	°C	°C
Cooler #3:	°C	°C	Cooler #6:	°C	°C	Cooler #9:	°C	°C

TALS Sample Number	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	Metals* (pH<2)	Hardness (pH<2)	Pest (pH 5-9)	EPH or QAM (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other	Other

If pH adjustments are required record the information below:

Sample No(s). adjusted: _____

Preservative Name/Conc.: _____ Volume of Preservative used (ml): _____

Lot # of Preservative(s): _____ Expiration Date: _____

The appropriate Project Manager and Department Manager should be notified about the samples which were pH adjusted.

* *Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-038, Rev 4.1
10/22/2019

Initials: Bamal Date: 5 19 20

Login Sample Receipt Checklist

Client: AECOM

Job Number: 460-209199-1

Login Number: 209199
List Number: 1
Creator: Jara, Kelly D

List Source: Eurofins TestAmerica, Edison

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Attachment C
Data Usability Summary Report

AECOM
707 Grant Street
Pittsburgh, PA 15219
aecom.com

Project name:
Inwood EXC

Project ref:
60137359-463

From:
Gregory A. Malzone

Date:
May 28, 2020

To:
Shreyas Mantri
AECOM
125 Broad Street, 16th Floor
New York, NY 10004

CC:
Robert Davis
AECOM
1360 Peachtree St.
Suite 500
Atlanta, GA 30309

Data Assessment Memorandum

Subject: Inwood May 2020 EXC_01 Soil Sample Data Assessment

Overview

Data validation was performed on one data package from Eurofins TestAmerica, 777 New Durham Road, Edison, NJ 08817 (ETAL-Edison). The soil samples were collected on May 19, 2020 at the Inwood, NY site. ETAL-Edison processed the samples and reported the results under sample delivery group (SDG) 460-209199-1.

The following analytical methods were requested on the chain-of-custody (CoC) records.

- Method SW-846 8260C – Volatile Organic Compounds (VOCs) by Gas Chromatography/Mass Spectrometry (GC/MS)
- Method SW-846 8270D – Semivolatile Organic Compounds (SVOCs) by GC/MS
- Method SW-846 8081B – Organochlorine Pesticides by GC
- Method SW-846 8082A – Polychlorinated Biphenyls (PCBs) by GC
- Method SW-846 6010D – Total RCRA Metals by Argon Inductively-Coupled Plasma – Atomic Emission Spectrometry (ICP-AES)
- Method SW-846 7471B – Total Mercury by Cold Vapor Atomic Absorption (CVAA)
- Method SW-846 9016 – Free Cyanide
- USEPA Percent Solids for Dry Weight Correction

The data were evaluated for conformance to method specifications and qualifiers were applied using the USEPA Region II SOPs and the validation criteria set forth in the *USEPA Contract Laboratory Program (CLP) National Functional Guidelines for Organic Superfund Methods Data Review*, EPA-540-R-2017-002, January 2017 and *USEPA Contract Laboratory Program*

National Functional Guidelines for Inorganic Superfund Methods Data Review, EPA-540-R-2017-001, January 2017, as they apply to the analytical methods employed.

Review Elements

The following elements of the data package were reviewed.

- Agreement of analyses conducted with chain-of-custody requests
- Holding times/sample preservation
- Initial and continuing calibrations
- Internal standard results
- Method preparation and calibration blank results
- Laboratory control sample (LCS) results
- Matrix spike and laboratory duplicate results
- Surrogate recoveries
- Compound/Analyte identification and quantitation

Samples

Table 1 below lists the sample field identifications cross-referenced to the laboratory identifications.

Table 1- Sample Submittals

Field ID	Lab ID	Matrix	Date/Time Sampled
EXC_01_051920	460-209199-1	Soil	05/08/20 07:00

DISCUSSION

General Comments

All VOC, SVOC, pesticide, and PCB results were reported to the method detection limits (MDLs) in µg/kg (ppb) on a dry weight basis. All metals and free cyanide results were reported to the MDLs in mg/kg (ppm) on a dry weight basis.

The percent solids measurement was greater than 30%.

Data Qualifiers

The following USEPA-defined data qualifier was applied in this data assessment.

UJ The analyte was analyzed for but was not detected. The reported quantitation limit is approximated and may be inaccurate or imprecise.

Assigned qualifiers were appended to the data summary reports attached.

Agreement of Analyses Conducted with CoC Requests

Sample reports were checked to verify that the results corresponded to analytical requests as designated on the CoC. No discrepancies were noted.

Holding Times and Preservation

The sample shipment was received on ice, intact, with the proper chemical preservation, and in good condition. The cooler temperature was within the optimal temperature range of 0-6 degrees Celsius (°C) upon receipt at ETAL-Edison.

All samples were preserved, prepared, and analyzed within the method-specified holding times.

Initial and Continuing Calibrations

All GC/MS daily performance checks and hardware tunes, initial and continuing calibrations verifications (CCVs) were within the method specification limits with the following exceptions.

8260C

The CCV percent difference/drift (%D) for chloroethane was less than the lower method specification limit of -20% on 05/21/20 at 17:56 on instrument CVOAMS4. The chloroethane result for associated sample EXC_01_051920 was non-detect and was qualified "UJ," as an estimate, because of low method (instrument) bias.

The CCV %D for bromomethane was greater than the upper method specification limit of 20% on 05/21/20 at 17:56 on instrument CVOAMS4. The bromomethane result for associated sample EXC_01_051920 was non-detect and did not require qualification in response to the high method (instrument) bias.

8270D

The CCV %D for benzaldehyde was less than the lower method specification limit of -20% on 05/21/20 at 06:35 on instrument CBNAMS15. The benzaldehyde result for associated sample EXC_01_051920 was non-detect and was qualified "UJ," as an estimate, because of low method (instrument) bias.

8081B

The CCV %D for toxaphene peak 5 was less than the lower method specification limit of -20% on 05/22/20 at 04:037 on instrument CPESTG12, column 1. The toxaphene result for associated sample EXC_01_051920 was non-detect and the %D for toxaphene peak 5 was acceptable on column 2. No data qualification was required.

Internal Standards

All GC/MS and ICP-MS internal standards were within the method specification limits.

Laboratory Method and Calibration Blanks

No target compounds or analytes were detected at concentrations exceeding the MDLs in the laboratory method preparation and calibration blanks with the following exception.

6010D

Arsenic was detected in the ICP-AES initial calibration blank (ICB) 460-695894/8 (05/20/20 10:49). The positive arsenic result for associated sample EXC_01_051920 was greater than the ten times the ICB concentration. No data qualification was required.

Laboratory Control Samples (LCS)

All LCS recoveries were within the quality control limits with the following exceptions.

8270D

The LCS/LCSD 460-693444/2-A/3-A (05/21/20) recoveries for 4-chloroaniline were less than or equal to the lower quality control limit, but greater than 10%. The 4-chloroaniline result for associated sample EXC_01_051920 was non-detect and was qualified "UJ," as an estimate because of low method bias.

The LCS/LCSD 460-693444/2-A/3-A (05/21/20) recoveries for 2,2'-oxybis[1-chloropropane] were greater than the upper quality control limit. 2,2'-oxybis[1-Chloropropane] was not detected in associated sample EXC_01_051920 and did not require qualification in response to the high method bias.

Matrix Spike and Laboratory Duplicate RPDs

Matrix spike and matrix spike duplicates and laboratory duplicates that were performed on non-project samples were not evaluated because matrix similarity to project samples could not be assumed.

Surrogate Recoveries

All surrogate recoveries were within the quality control limits for all field samples with the following exception.

8081B

The decachlorobiphenyl (DCB) surrogate recovery was greater than the upper quality control limit on column 2 because of matrix interference. No target pesticides were detected in associated sample EXC_01_051920 and the pesticide results were reported from column 1 which had an acceptable DBC recovery. No data qualification was required.

Compound/Analyte Identification and Quantitation

Positive compound/analyte results less than the RL, but greater than the MDL were qualified “J,” as estimated concentrations, due to increased uncertainty near the detection limit. These “J” qualifiers were maintained in this data validation. Sample results reported between the MDL and RL are usable as estimated values with an unknown directional bias.

Summary

All data have been determined to be useable for assessing the presence/absence and quantitative concentrations of the analytes in the media tested (i.e., soil) with some qualifications. See the attached qualified analytical result reports. Completeness of 100% was achieved for this data set which is within the goal of 90-100%.

Client Sample Results

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

Client Sample ID: EXC_01_051920

Date Collected: 05/19/20 07:00
Date Received: 05/19/20 17:30

Lab Sample ID: 460-209199-1

Matrix: Solid
Percent Solids: 76.7

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.28	U	1.2	0.28	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,1,2,2-Tetrachloroethane	0.25	U	1.2	0.25	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.36	U	1.2	0.36	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,1,2-Trichloroethane	0.21	U	1.2	0.21	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,1-Dichloroethane	0.25	U	1.2	0.25	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,1-Dichloroethene	0.27	U	1.2	0.27	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,2,3-Trichlorobenzene	0.22	U	1.2	0.22	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,2,4-Trichlorobenzene	0.43	U	1.2	0.43	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,2-Dichloropropane	0.50	U	1.2	0.50	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,3-Dichlorobenzene	0.19	U	1.2	0.19	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,4-Dichlorobenzene	0.27	U	1.2	0.27	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,4-Dioxane	11	U	24	11	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
2-Butanone (MEK)	3.2	U	5.9	3.2	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
2-Hexanone	2.0	U	5.9	2.0	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
4-Methyl-2-pentanone (MIBK)	1.8	U	5.9	1.8	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Acetone	6.8	U	7.1	6.8	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Benzene	0.31	U	1.2	0.31	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Bromoform	0.51	U	1.2	0.51	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Bromomethane	0.56	U	1.2	0.56	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Carbon disulfide	**1.9**		1.2	0.32	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Carbon tetrachloride	0.46	U	1.2	0.46	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Chlorobenzene	0.21	U	1.2	0.21	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Chlorobromomethane	0.33	U	1.2	0.33	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Chlorodibromomethane	0.23	U	1.2	0.23	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Chloroethane	0.62	UJ	1.2	0.62	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Chloroform	0.38	U	1.2	0.38	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Chloromethane	0.52	U	1.2	0.52	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
cis-1,2-Dichloroethene	0.18	U	1.2	0.18	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
cis-1,3-Dichloropropene	0.32	U	1.2	0.32	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Cyclohexane	0.26	U	1.2	0.26	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Dichlorobromomethane	0.31	U	1.2	0.31	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Dichlorodifluoromethane	0.40	U	1.2	0.40	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Ethylbenzene	0.24	U	1.2	0.24	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Ethylene Dibromide	0.21	U	1.2	0.21	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Isopropylbenzene	0.15	U	1.2	0.15	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Methyl acetate	5.1	U	5.9	5.1	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Methyl tert-butyl ether	0.15	U	1.2	0.15	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Methylcyclohexane	0.59	U	1.2	0.59	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Methylene Chloride	0.55	U	1.2	0.55	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
m-Xylene & p-Xylene	0.21	U	1.2	0.21	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
o-Xylene	0.23	U	1.2	0.23	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Styrene	0.33	U	1.2	0.33	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Tetrachloroethene	0.17	U	1.2	0.17	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Toluene	0.28	U	1.2	0.28	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
trans-1,2-Dichloroethene	0.29	U	1.2	0.29	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
trans-1,3-Dichloropropene	0.32	U	1.2	0.32	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Trichloroethene	0.17	U	1.2	0.17	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Trichlorofluoromethane	0.48	U	1.2	0.48	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
Vinyl chloride	0.65	U	1.2	0.65	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1

Client Sample Results

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

Client Sample ID: EXC_01_051920

Date Collected: 05/19/20 07:00
Date Received: 05/19/20 17:30

Lab Sample ID: 460-209199-1

Matrix: Solid
Percent Solids: 76.7

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane	0.35	U	1.2	0.35	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,2-Dichlorobenzene	0.17	U	1.2	0.17	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1
1,2-Dibromo-3-Chloropropane	0.55	U	1.2	0.55	ug/Kg	☼	05/20/20 08:36	05/21/20 22:05	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*77 - 145*	*05/20/20 08:36*	*05/21/20 22:05*	*1*
4-Bromofluorobenzene	*102*		*79 - 125*	*05/20/20 08:36*	*05/21/20 22:05*	*1*
Dibromofluoromethane (Surr)	*109*		*48 - 150*	*05/20/20 08:36*	*05/21/20 22:05*	*1*
Toluene-d8 (Surr)	*104*		*80 - 120*	*05/20/20 08:36*	*05/21/20 22:05*	*1*

Method: 8270D - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1'-Biphenyl	5.7	U	430	5.7	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
1,2,4,5-Tetrachlorobenzene	13	U	430	13	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,2'-oxybis[1-chloropropane]	7.8	U ~~*~~	430	7.8	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,3,4,6-Tetrachlorophenol	29	U	430	29	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,4,5-Trichlorophenol	44	U	430	44	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,4,6-Trichlorophenol	55	U	170	55	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,4-Dichlorophenol	28	U	170	28	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,4-Dimethylphenol	19	U	430	19	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,4-Dinitrophenol	210	U	350	210	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,4-Dinitrotoluene	46	U	87	46	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2,6-Dinitrotoluene	31	U	87	31	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2-Chloronaphthalene	20	U	430	20	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2-Chlorophenol	15	U	430	15	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2-Methylnaphthalene	**19**	**J**	430	12	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2-Methylphenol	16	U	430	16	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2-Nitroaniline	16	U	430	16	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
2-Nitrophenol	43	U	430	43	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
3,3'-Dichlorobenzidine	65	U	170	65	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
3-Nitroaniline	49	U	430	49	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4,6-Dinitro-2-methylphenol	70	U	350	70	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Bromophenyl phenyl ether	17	U	430	17	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Chloro-3-methylphenol	24	U	430	24	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Chloroaniline	30	~~U *~~ UJ	430	30	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Chlorophenyl phenyl ether	15	U	430	15	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Methylphenol	27	U	430	27	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Nitroaniline	50	U	430	50	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
4-Nitrophenol	70	U	870	70	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Acenaphthene	**39**	**J**	430	31	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Acenaphthylene	4.5	U	430	4.5	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Acetophenone	21	U	430	21	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Anthracene	**110**	**J**	430	13	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Atrazine	11	U	170	11	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Benzaldehyde	19	U J	430	19	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Benzo[a]anthracene	**330**		43	15	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Benzo[a]pyrene	**270**		43	11	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Benzo[b]fluoranthene	**380**		43	11	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Benzo[g,h,i]perylene	**100**	**J**	430	13	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Benzo[k]fluoranthene	**150**		43	8.5	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1

Client Sample ID: EXC_01_051920
Lab Sample ID: 460-209199-1

Date Collected: 05/19/20 07:00
Matrix: Solid
Date Received: 05/19/20 17:30
Percent Solids: 76.7

Method: 8270D - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	34	U	430	34	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Bis(2-chloroethyl)ether	15	U	43	15	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Bis(2-ethylhexyl) phthalate	23	U	430	23	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Butyl benzyl phthalate	20	U	430	20	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Caprolactam	67	U	430	67	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Carbazole	**52**	**J**	430	16	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Chrysene	**330**	**J**	430	7.3	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Dibenz(a,h)anthracene	19	U	43	19	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Dibenzofuran	**18**	**J**	430	6.1	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Diethyl phthalate	6.2	U	430	6.2	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Dimethyl phthalate	98	U	430	98	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Di-n-butyl phthalate	76	U	430	76	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Di-n-octyl phthalate	23	U	430	23	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Fluoranthene	**680**		430	15	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Fluorene	**28**	**J**	430	5.9	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Hexachlorobenzene	20	U	43	20	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Hexachlorobutadiene	9.2	U	87	9.2	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Hexachlorocyclopentadiene	38	U	430	38	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Hexachloroethane	15	U	43	15	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Indeno[1,2,3-cd]pyrene	**130**		43	17	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Isophorone	120	U	170	120	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Naphthalene	7.5	U	430	7.5	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Nitrobenzene	10	U	43	10	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
N-Nitrosodi-n-propylamine	31	U	43	31	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
N-Nitrosodiphenylamine	8.3	U	430	8.3	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Pentachlorophenol	88	U	350	88	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Phenanthrene	**340**	**J**	430	7.6	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Phenol	16	U	430	16	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1
Pyrene	**610**		430	11	ug/Kg	☼	05/20/20 17:45	05/21/20 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol (Surr)	*55*		*10 - 123*	*05/20/20 17:45*	*05/21/20 17:58*	*1*
2-Fluorobiphenyl	*50*		*25 - 104*	*05/20/20 17:45*	*05/21/20 17:58*	*1*
2-Fluorophenol (Surr)	*51*		*18 - 106*	*05/20/20 17:45*	*05/21/20 17:58*	*1*
Nitrobenzene-d5 (Surr)	*49*		*19 - 105*	*05/20/20 17:45*	*05/21/20 17:58*	*1*
Phenol-d5 (Surr)	*48*		*26 - 101*	*05/20/20 17:45*	*05/21/20 17:58*	*1*
Terphenyl-d14 (Surr)	*63*		*25 - 127*	*05/20/20 17:45*	*05/21/20 17:58*	*1*

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	1.5	U	8.7	1.5	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
4,4'-DDE	1.0	U	8.7	1.0	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
4,4'-DDT	1.6	U	8.7	1.6	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Aldrin	1.3	U	8.7	1.3	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
alpha-BHC	0.89	U	2.6	0.89	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
beta-BHC	0.98	U	2.6	0.98	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Chlordane (technical)	21	U	87	21	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
delta-BHC	0.53	U	2.6	0.53	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Dieldrin	1.1	U	2.6	1.1	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Endosulfan I	1.3	U	8.7	1.3	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1

Client Sample Results

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

Client Sample ID: EXC_01_051920

Date Collected: 05/19/20 07:00
Date Received: 05/19/20 17:30

Lab Sample ID: 460-209199-1

Matrix: Solid
Percent Solids: 76.7

Method: 8081B - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan II	2.2	U	8.7	2.2	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Endosulfan sulfate	1.1	U	8.7	1.1	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Endrin	1.3	U	8.7	1.3	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Endrin aldehyde	2.1	U	8.7	2.1	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Endrin ketone	1.7	U	8.7	1.7	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
gamma-BHC (Lindane)	0.81	U	2.6	0.81	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Heptachlor	1.0	U	8.7	1.0	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Heptachlor epoxide	1.3	U	8.7	1.3	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Methoxychlor	2.0	U	8.7	2.0	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1
Toxaphene	32	U	87	32	ug/Kg	☼	05/21/20 10:17	05/22/20 05:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*1057*	*X*	*28 - 148*	*05/21/20 10:17*	*05/22/20 05:23*	*1*
DCB Decachlorobiphenyl	*49*		*28 - 148*	*05/21/20 10:17*	*05/22/20 05:23*	*1*
Tetrachloro-m-xylene	*66*		*34 - 118*	*05/21/20 10:17*	*05/22/20 05:23*	*1*
Tetrachloro-m-xylene	*105*		*34 - 118*	*05/21/20 10:17*	*05/22/20 05:23*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1016	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1221	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1232	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1242	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1248	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1254	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1260	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor-1262	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Aroclor 1268	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1
Polychlorinated biphenyls, Total	12	U	87	12	ug/Kg	☼	05/21/20 09:47	05/22/20 08:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*73*		*10 - 150*	*05/21/20 09:47*	*05/22/20 08:26*	*1*
DCB Decachlorobiphenyl	*102*		*10 - 150*	*05/21/20 09:47*	*05/22/20 08:26*	*1*
Tetrachloro-m-xylene	*78*		*58 - 145*	*05/21/20 09:47*	*05/22/20 08:26*	*1*
Tetrachloro-m-xylene	*96*		*58 - 145*	*05/21/20 09:47*	*05/22/20 08:26*	*1*

Method: 6010D - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silver	1.4	U	2.5	1.4	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2
Arsenic	**9.4**		3.7	0.76	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2
Barium	**32.8**	**J**	49.2	4.7	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2
Cadmium	**0.16**	**J**	0.98	0.085	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2
Chromium	**19.9**		2.5	1.7	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2
Lead	**43.2**		2.5	0.40	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2
Selenium	0.83	U	4.9	0.83	mg/Kg	☼	05/20/20 04:14	05/20/20 16:16	2

Method: 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.014**	**J**	0.020	0.0047	mg/Kg	☼	05/21/20 03:19	05/21/20 07:14	1

Client Sample Results

Client: AECOM
Project/Site: NATIONAL GRID - INWOOD

Job ID: 460-209199-1

Client Sample ID: EXC_01_051920

Date Collected: 05/19/20 07:00
Date Received: 05/19/20 17:30

Lab Sample ID: 460-209199-1

Matrix: Solid
Percent Solids: 76.7

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Free	0.40	U	1.4	0.40	mg/Kg	☼	05/24/20 09:30	05/24/20 17:02	1