STATE OF NEW YORK
OFFICE OF GENERAL SERVICES
DESIGN AND CONSTRUCTION GROUP
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ADDENDUM NO. 3 TO PROJECT NO. 44546

CONSTRUCTION WORK
REMEDIATE FIRING RANGE
ARTHUR KILL CORRECTIONAL FACILITY
2911 ARTHUR KILL ROAD
STATEN ISLAND, NEW YORK 10309

February 28, 2014

NOTE: This Addendum forms a part of the Contract Documents. Insert it in the Project Manual. Acknowledge receipt of this Addendum in the space provided on the Bid Form.

CONSTRUCTION WORK SPECIFICATIONS

1. Add the attached Document titled "PHASE II ENVIRONMENTAL SITE ASSESMENT" (Pages 1 thru 239) to the appendix of the Project Manual.
2. Add the attached Document titled "SUBSURFACE INVESTIGATION REPORT, NEW FIRING RANGE" (Pages 1 thru 248) to the appendix of the Project Manual.

END OF ADDENDUM

Margaret F. Larkin
Acting Executive Director

PHASE II ENVIRONMENTAL SITE ASSESSMENT

ARTHUR KILL CORRECTIONAL FACILITY
STATEN ISLAND
NEW YORK

Prepared for:

NEW YORK STATE DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

AND

NEW YORK STATE OFFICE OF GENERAL SERVICES

NYS OFFICE OF GENERAL SERVICES

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JUNE 2013

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I. EXECUTIVE SUMMARY

This Phase II Environmental Site Assessment (ESA) Report has been prepared by C&S Engineers, Inc., (C&S) under an agreement with the New York State Office of General Services (NYSOGS) to support the effort of the New York State Department of Corrections and Community Supervision (NYSDOCCS) in assessing potential environmental issues at the Arthur Kill Correctional Facility (the subject property). The correctional facility was closed in 2010 and this Phase II ESA is part of New York State's effort to determine a future use of the subject property. The Arthur Kill Correctional Facility is located at 2911 Arthur Kill Road, Staten Island, New York.

A Phase I Environmental Site Assessment (ESA) was prepared for the Arthur Kill Correctional Facility in December 2011 by HRP Associates, Inc. of Clifton Park, New York. The Phase I ESA identified recognized environmental conditions (RECs). The scope of this investigation was based on the findings and recommendations of that report which consisted of past uses and historical events associated with the subject property and nearby properties. This Phase II ESA investigated three separate areas identified in the Phase I ESA:

- The NYSDEC Spill Number 01-05760 area, immediately west of facility Building 5;
- The Fuel oil USTs area (no longer operational) west of facility Building 6, formerly associated with NYSDEC Spill Number 99-09668; and
- The Service Station (facility Building 20) area, where an oil/water separator and fuel USTs (no longer operational) are located.

The Phase I ESA also identified the former firing range and the new firing range at the facility as RECs. Investigations of these two firing ranges have been conducted by NYSDOCCS and a remedial design is currently underway. Therefore, these two RECs were not included in the scope of this Phase II ESA.

C&S mobilized to the site on March 18, 2013 and was assisted by New York Leak Detection of Jamesville, New York (utility locating subcontractor). The drilling subcontractor, EMC, Inc. of Rockaway New Jersey then mobilized on March 25, 2013 to assist in collecting soil samples. Prior to the site mobilization, Dig Safe NY was contacted and the member utilities provided information and/or markouts . Prior to conducting ground-intrusive explorations, NYLD utilized utility locating and/or geophysical investigative techniques to identify subsurface utilities and structures. The ground intrusive investigation consisted of twenty test borings within the accessible exterior portions of the property. The test borings were advanced to depths which ranged from approximately fifteen feet to approximately twenty feet below ground surface (bgs). Test boring logs are provided in Appendix A. Based upon physical characteristics, evidence of top of local groundwater, and / or field PID readings, fourteen soil samples were selected and submitted laboratory analysis.

In the Spill #01-05760 area, nuisance characteristics (odors and staining) and measurements of volatile vapors within the extracted soil samples indicate the presence of a degraded petroleum-like substance in the subsurface associated at the following boring locations: BH-2, BH-3, BH-4, BH-5, BH-6, and BH-7. The impacts were observed in samples collected from approximately ten feet below the ground surface to depths of fifteen to twenty feet.

In the fuel oil USTs area, odors, staining and measurements of volatile vapors were detected in soils from the nine- to fifteen-feet depth interval at sampling location BH-14.

In the service station area, there were no physical observations indicative of soil or groundwater impacts.

Review of the analytical data and comparison to 6 NYCRR 375-6 *Remedial Program Soil Cleanup Objectives* (SCOs) indicates that:

- For the Spill #01-05760 area, there were no detections of volatile or semivolatile organic compounds, PCBs, or metals that exceeded the SCOs for those parameters.
- For the Heating Oil/UST area, the sample collected at location BH-14 exhibited the presence of one volatile organic compound (1,2,4-Trimethylbenzene) at a concentration exceeding the "Unrestricted Use" SCO. There were no semivolatile organic compounds, PCBS or metals that exceeded any of the SCOs for those parameters.
- For the Service Station area, there were no volatile, semivolatile, PCBs, or metals detected at levels exceeding SCOs.

Guidance regarding Spills Closure or property remediation for redevelopment under any of several programs administered by the NYSDEC is provided in *DER-10 – Technical Guidance for Site Investigation and Remediation.* Based on the presence of petroleum-related VOC and SVOC compounds in the subsurface soil samples, and on the observation of volatile vapors and nuisance characteristics (odors and staining) in soil samples, remediation consistent with NYSDEC Spills Closure Guidance (DER-10) may be needed in the Spill #01-05760 area and in the Heating Oil/UST area to achieve "Unrestricted Use" status for the affected areas.

Based on the observations of nuisance characteristics from the area associated with NYSDEC Spill # 01-05760 during this effort, the estimated remedial area (surface area) would be approximately 4,800 square feet which, with an average depth interval of petroleum impacts of approximately five to seven feet would result in a volume estimate of approximately 900 to 1,250 cubic yards (or approximately 1,400 to 2,000 tons) of impacted soil.

For the Heating Oil/UST area, the one sample location where petroleum impacts were observed (BH-14) appears isolated and, based on the presence of "clean" adjacent sampling locations and adjacent structures, would be associated with a minimal quantity of accessible impacted soils. It would seem appropriate that remediation in this area would be undertaken when the USTs were to be removed or replaced.

For future property uses other than "Unrestricted", the generally low levels of detected petroleum-related compounds indicate many potential uses for which a cleanup to the "Unrestricted" standards discussed above would not be required. The data indicate that the site would be generally suitable as is for "Industrial Use" or for "Commercial Use". For use as a "Residential" (single family) or a "Restricted Residential" (multi-family) property, restrictions may be needed to prevent direct contact with, or ingestion of, the soils. For future use of the affected areas requiring habitable structures, design of building systems would need to consider the potential for volatile vapors to affect indoor air quality.

Although characterization of groundwater quality was not within the scope of this Phase II ESA, institution of a groundwater use restriction for the affected areas may also be part of a future redevelopment scenario.

II. INTRODUCTION

A. Purpose and Background

This Phase II Environmental Site Assessment Report has been prepared by C&S Engineers, Inc., (C&S) with the scope being established in our February 4, 2013 proposal, which formed the basis of the investigation. The investigation was completed at the Arthur Kill Correctional Facility site which is approximately 161 acres and includes approximately 35 buildings. The property is located at 2911 Arthur Kill Road, Staten Island, New York.

A Phase I Environmental Site Assessment (ESA) prepared for the Arthur Kill Correctional Facility in December 2011 by HRP Associates, Inc. of Clifton Park, New York. The Phase I ESA identified recognized environmental conditions (RECs), including the firing ranges. The scope of this investigation was based on the findings and recommendations of that report which consisted of past uses of the subject property and adjacent properties.

The purpose of a Phase II ESA is to evaluate recognized environmental conditions (RECs) identified in a Phase I ESA. A REC is the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, past release, or a material threat of a release into structures on the property or into the ground, groundwater, or surface water. The objective of the New York State Department of Corrections and Community Supervision for completion of this Phase II ESA was to collect environmental data that could support the sale and redevelopment of the property.

RECs identified in the Phase I ESA and addressed by our investigation include the past industrial uses of the subject property and the past uses of adjacent properties that might have the potential to affect the subject property. This Phase II ESA investigated three separate areas identified in the Phase I ESA:

- The NYSDEC Spill Number 01-05760 area, immediately west of facility Building 5;
- The Fuel oil USTs area (no longer operational) west of facility Building 6, formerly associated with NYSDEC Spill Number 99-09668; and
- The Service Station (facility Building 20) area, where an oil/water separator and fuel USTs (no longer operational) are located.

The Phase I ESA also identified the former firing range and the new firing range at the facility as RECs. Investigations of these two firing ranges have been conducted by NYSDOCCS and a remedial design is currently underway. Therefore, these two RECs were not included in the scope of this Phase II ESA.

B. Scope and Objectives of the Investigation

Objectives of the investigation were to:

- Determine the absence or presence of contaminants within the subsurface soils via conventional field techniques and laboratory analysis.
- Assess laboratory data relative to applicable New York State Department of Environmental Conservation (NYSDEC) regulations and guidance values, specifically 6 NYCRR 375-6 "Unrestricted Use", "Residential Use", and "Commercial Use" Soil Clean-up Objectives.
- Provide conclusions, opinions, and recommendations based upon the information gathered during this effort.

The scope of work for this ESA was developed based on our experience in performing environmental due diligence and contaminant investigations. The scope of work took into consideration the requirements of ASTM E1903-97 (Reapproved 2002) *Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process*.

Our scope of services was prepared to provide a reasonable characterization of subsurface conditions at a reasonable cost to the State of New York and was not intended to be a comprehensive site investigation to determine the nature and extent of contamination throughout the 161 acre site. This was generally accomplished by limiting the areas of investigation to those identified with historical impacts (such as Spill # 01-05760 area) or in areas where past activities suggest the likelihood that impacted media might be present (such as the service station).

C. Special Terms and Conditions

Besides the standard business contract between C&S and our Client, this Phase II Environmental Site Assessment was conducted, in our opinion, with no impeding special terms and conditions that would alter the scope and/or effectiveness of ASTM E 1903-97 (2002).

D. Out of Scope Considerations

Based on our analysis of the information provided in the Phase I ESA, the interior portions of the Arthur Kill Correctional Facility buildings were not included in our investigation.

E. Site Description and Features

Figure 1 illustrates the location of the subject property along the Arthur Kill River within the Arthur Kill USGS Quadrangle. USDA soil surveys indicate that native site soils belong to the RIVERHEAD group, a Class B hydrologic group consisting of sandy loams, that are moderately well to well drained and deep to moderately deep. These soils do not meet the requirements for hydric soils and the depth to water table is generally greater than six feet.
Bedrock beneath the site is described as a stratified sequence from the Mesozoic Era, Cretaceous System, and Upper Cretaceous Series. The depth to bedrock is greater than 60 inches

(literature); bedrock was not encountered in any project borings, some of which were as deep as twenty feet. Groundwater flow is assumed to be towards the Arthur Kill from adjacent upland areas.

Surface drainage and groundwater both appear to flow in a southeast-to-northwest direction, corresponding to the topographical slope and apparently discharging to the Arthur Kill River within that waterbody's tidal zone.

Further information concerning the site and surrounds can be found in the Phase I ESA prepared in December 2011 by HRP Associates, Inc. of Clifton Park, New York.

III. PHASE II ACTIVITIES

A. Sampling Plan

The sampling plan, as executed for this Phase II Environmental Site Assessment, is described below:

- Layout and field staking of each exploration was conducted using GIS techniques and a survey quality hand-held GPS unit.

- NYLD performed utility identification and geophysical surveys of the study areas. The chief purpose of the those surveys was to determine the absence or presence of subsurface features such as septic disposal systems, fuel tanks and piping, and underground private and public utilities (e.g. gas, water, sewer, telephone). Each test boring location was "cleared" by NYLD prior to advancement of the boring.

- A Direct Push Technology (GeoProbe) rig was mobilized to make test borings. Ultimately 20 test borings were completed in order to obtain representative subsurface soil samples from the study areas. The terminal depth of the boreholes ranged from approximately fifteen feet to approximately twenty feet bgs. Figure 2 shows the locations of the test borings.

- C&S provided full time environmental monitoring and documentation of the subsurface investigation. This included:

    - Physical description of samples with regard to color, density, moisture, grain size, and physical evidence (visual / olfactory) indicative of contaminants.
    - Identification of the apparent top of local groundwater based on evidence of sample saturation
    - Field survey of soil samples via the use of a photoionization detector (PID equipped with a 10.6 eV lamp) and conventional head space analysis techniques.
    - Recording of field information for subsequent creation of logs to document each exploration

- Based upon physical characteristics, evidence of top of local groundwater and / or field PID readings, fourteen soil samples were selected and submitted to Alpha Analytical of Westborough, Massachusetts for the following analyses:

    - Target Compound List (including NYSDEC STARS list) Volatile Organic Compounds (VOCs),
    - Target Compound List (including NYSDEC STARS list) Semi-volatile Organic Compounds (SVOCs),
    - RCRA Metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), and
    - PCBs.

B. Field Exploration Results

NYLD and C&S mobilized to the site on March 18, 2013 with investigation activities continuing through March 27, 2013. The investigation consisted of twenty test borings. The borings were completed with a GeoProbe 7822 DT track mounted Direct Push Technology drilling rig operated by EMC, Inc. of Rockaway New Jersey.

Boring logs were completed for each exploration and are located in Appendix A of this report. For each five-foot sampling interval, and to the extent these could be determined by field personnel, the boring logs include:

- The amount of soil that was recovered;
- Soil moisture conditions;
- The presence of nuisance soil characteristics(visual or olfactory) indicative of potential contamination;
- Measurements made with a photo-ionization detector (PID) of the volatile vapors present within the sample; and
- The depth and thickness of each discernable soil unit.

IV. FINDINGS AND CONCLUSIONS

Based upon the information gathered during this Phase II Environmental Site Assessment, which was conducted consistent with ASTM E 1903 (2002) *"Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process* and our agreement to provide services to NYSOGS, we offer the following findings and recommendations.

A. Field Activities and Observations

Figure 2 illustrates the locations of the twenty soil borings within the accessible exterior portions of the property. The test borings were advanced to depths which ranged from approximately fifteen feet to approximately twenty feet below ground surface (bgs). Test boring logs are

provided in Appendix A. Based upon physical characteristics, evidence of top of local groundwater, and / or field PID readings, fourteen soil samples were selected and submitted laboratory analysis.

In the Spill #01-05760 area, nuisance characteristics (odors and staining) and measurements of volatile vapors within the extracted soil samples indicate the presence of a degraded petroleum-like substance in the subsurface associated at the following boring locations: BH-2, BH-3, BH-4, BH-5, BH-6, and BH-7. The impacts were observed in samples collected from approximately ten feet below the ground surface to depths of fifteen to twenty feet.

In the fuel oil USTs area, odors, staining and measurements of volatile vapors were detected in soils from the nine- to fifteen-feet depth interval at sampling location BH-14.

In the service station area, there were no physical observations indicative of soil or groundwater impacts.

In the Spill #01-05760 area, a unit of moist, tan/reddish fine to medium sand was observed to a depth of ten to twelve feet. That unit was underlain by red to tan soft silts with varying amounts of sand and gravel, ranging from two to four in thickness and underlain by denser silts with fine to medium gravel (glacial till). Saturated conditions were generally observed within the range of ten to twelve feet below the ground surface.

In the fuel oil USTs area, the reddish brown sand unit extended to a depth of approximately fifteen feet, with a transition to saturated conditions occurring at the depth of approximately ten feet.

In the Service Station area, the reddish/brown sand unit gave way to a moist red clay unit at eleven to thirteen feet depth and extended for two to four feet. Beneath the clay unit, wet flowing sands were present making further geoprobe drilling impossible.

At seven of the twenty boring locations, evidence of petroleum was observed within a discrete depth interval. That evidence included stained soils, oil-like sheens, petroleum-like odors, and PID measurements exceeding background. Figure 2 indicates the locations of all of project borings; the table below provides a summary of the approximate depths of the impacts, and the maximum PID measurement within each boring where impacts were observed.

Location	Approximate Depth Petroleum Impacts (ft below surface)	Maximum PID Measurement (parts per million)
BH-2	10-14	78
BH-3	10-15	134
BH-4	10-17	227
BH-5	10-15	190
BH-6	10-15	98
BH-7	10-15	56
BH-14	9-15	163

B. Soil Data Summary

Fourteen soil samples representing a range of areas and depths were selected and submitted to Alpha Analytical of Westborough, Massachusetts for each of the following analyses:

- Target Compound List (including NYSDEC STARS list) Volatile Organic Compounds (VOCs),
- Target Compound List (including NYSDEC STARS list) Semi-volatile Organic Compounds (SVOCs),
- RCRA Metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), and
- PCBs.

Tables 1, 2, and 3, respectively, provide the summary data for the soil samples from each of the three investigation areas. The tables provide with comparison to "Unrestricted Use" and "Commercial Use", and "Residential Use" Soil Cleanup Objectives (SCOs) from 6 NYCRR Part 375-6. Appendix B provides the full laboratory data report. Summaries of the data that exceed one or more of the SCOs are provided below.

Table 1 provides a summary of the analytical data for the Spill #01-05760 area. There were no detections of volatile or semivolatile organic compounds, PCBs, or metals that exceeded the SCOs for those parameters.

Table 2 provides a summary of the analytical data for the Heating Oil/UST area. At sampling location BH-14, there was one volatile organic compound (1,2,4-Trimethylbenzene at 12 mg/kg) that exceeded the "Unrestricted Use" SCO. There were no semivolatile organic compounds, PCBS or metals that exceeded the SCOs for those parameters.

Table 3 provides a summary of the analytical data for the Service Station area. There were no volatile or semivolatile organic compounds, PCBs, or metals detected at levels exceeding SCOs.

C. Conclusions

Guidance regarding Spills Closure or property remediation for redevelopment under any of several programs administered by the NYSDEC is provided in *DER-10 – Technical Guidance for Site Investigation and Remediation.* Based on the minimal detections of petroleum-related VOC and SVOC compounds in the subsurface soil samples, and on the observation of volatile vapors and nuisance characteristics (odors and staining) in soil samples, remediation consistent with NYSDEC Spills Closure Guidance (DER-10) may be needed in the Spill #01-05760 area and in the Heating Oil/UST area to achieve "Unrestricted Use" status for the affected areas.

Based on the observations of nuisance characteristics in the area associated with NYSDEC Spill # 01-05760 during this effort, the estimated remedial area (surface area) would be approximately 4,800 square feet which, with an average depth interval of petroleum impacts of ranging from

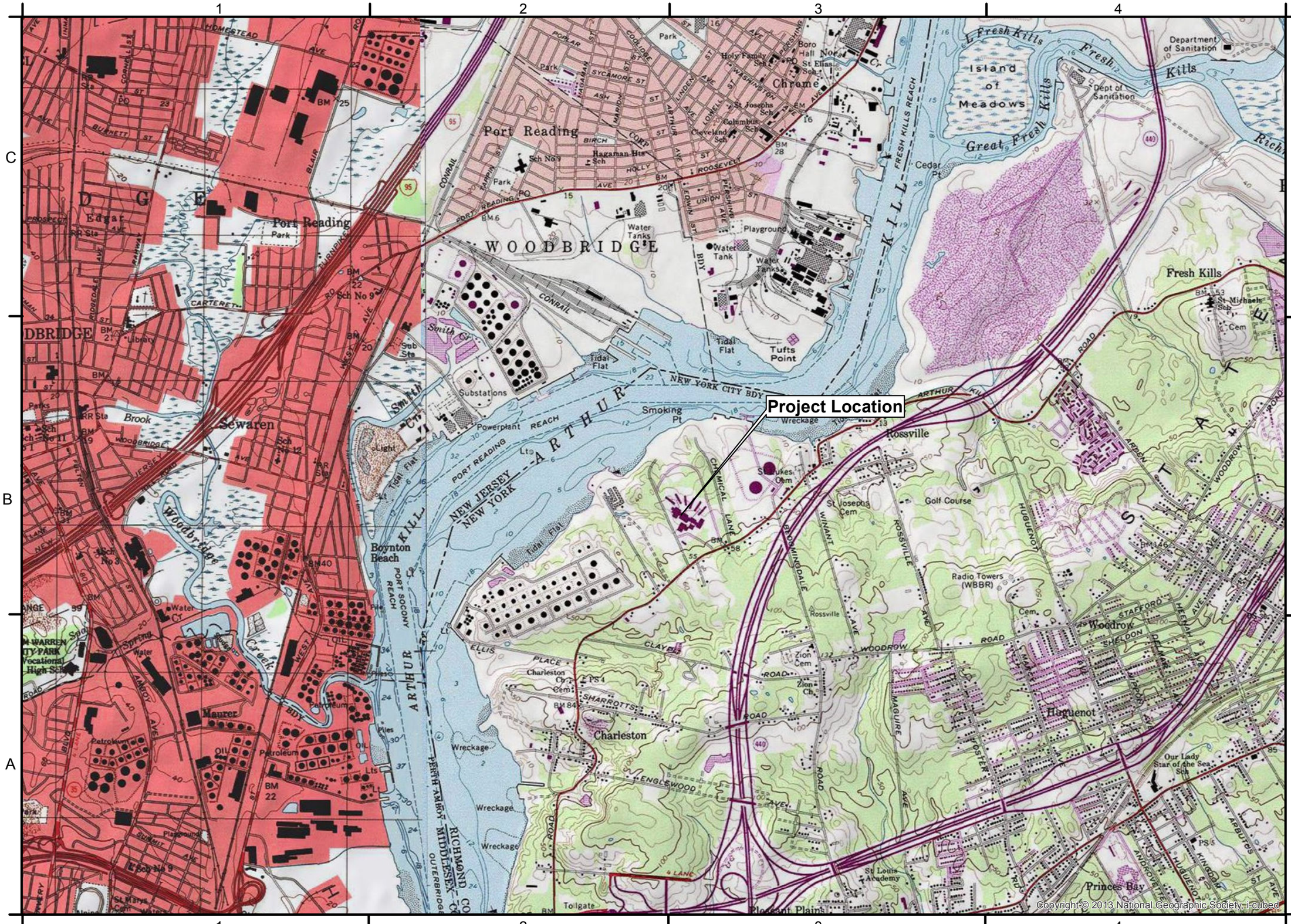
five to seven feet would result in a volume estimate of approximately 900 to 1,250 cubic yards (or approximately 1,400 to 2,000 tons) of impacted soil.

For the Heating Oil/UST area, the one sample location where petroleum impacts were observed (BH-14) appears isolated and, based on the presence of "clean" adjacent sampling locations and adjacent underground utilities and structures, would be associated with a minimal quantity of accessible impacted soils. It would be appropriate that remediation in this area would be delayed until the USTs were to be removed or replaced.

For future property uses other than "Unrestricted", the generally low levels of petroleum-related compounds indicate many potential uses for which a cleanup to the "Unrestricted" standards discussed above would not be required. The data indicate that the site would be generally suitable as is for "Industrial Use" or for "Commercial Use". For use as a "Residential" (single family) or a "Restricted Residential" (multi-family) property, restrictions may be needed to prevent direct contact with, or ingestion of, the soils. For future use of the affected areas requiring habitable structures, design of building systems would need to consider the potential for volatile vapors to affect indoor air quality.

Although characterization of groundwater quality was not within the scope of this Phase II ESA, institution of a groundwater use restriction for the affected areas may also be part of a future redevelopment scenario.

FIGURES



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N W E S

0 2,000 Feet
1 inch = 2,000 feet

PHASE II SUBSURFACE INVESTIGATION REPORT
ARTHUR KILL CORRECTIONAL FACILITY
STATEN ISLAND, NEW YORK

PROJECT NO:	190
DATE:	May 2013
SCALE:	AS SHOWN
DRAWN BY:	WNR
DESIGNED BY:	WNR
CHECKED BY:	RW

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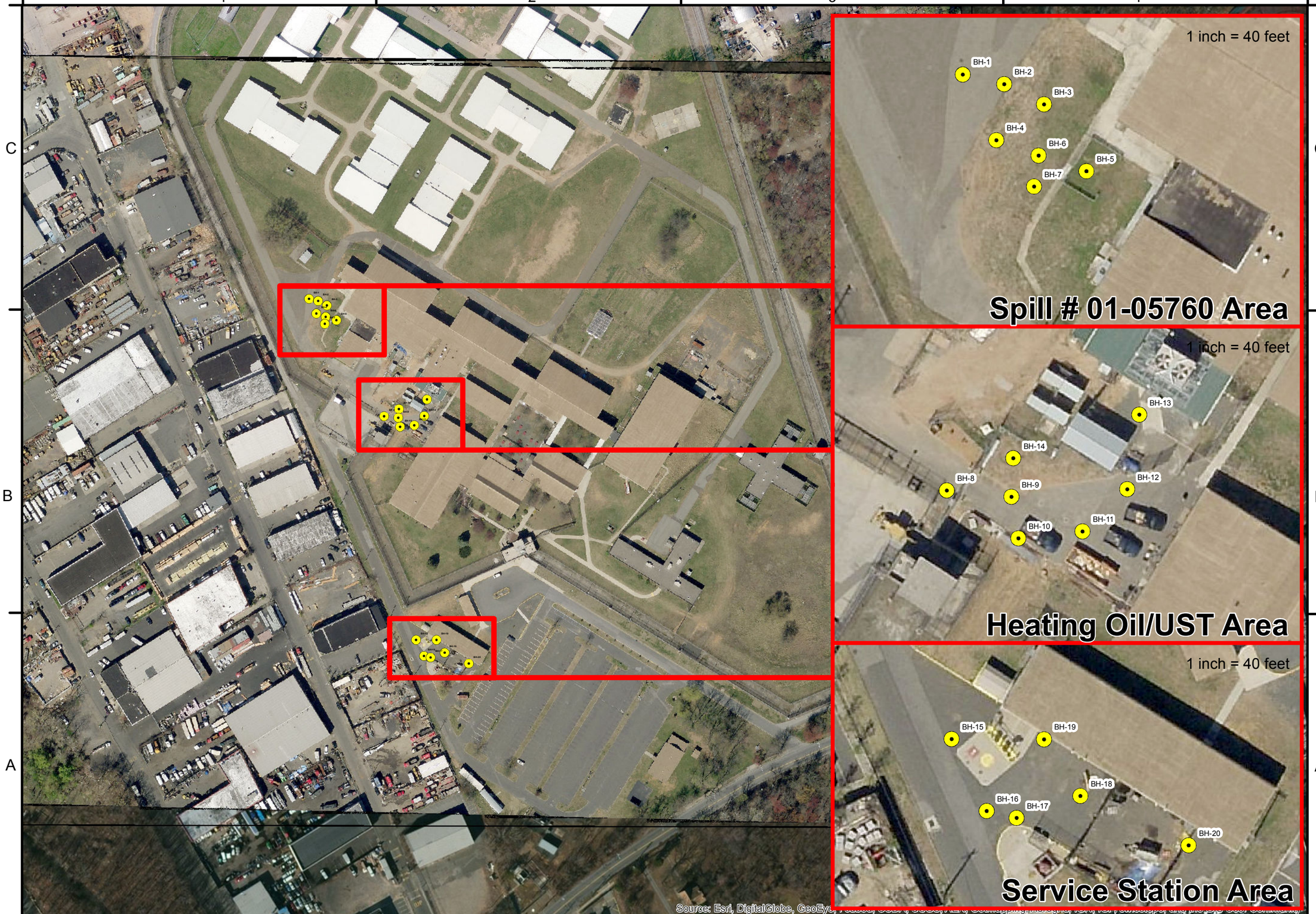
Project Location Map

Figure 1



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Legend

Sample Location

N W E S

0 180 Feet

1 inch = 180 feet

PHASE II SUBSURFACE INVESTIGATION REPORT
ARTHUR KILL CORRECTIONAL FACILITY
STATEN ISLAND, NEW YORK

PROJECT NO:	190
DATE:	May 2013
SCALE:	AS SHOWN
DRAWN BY:	WNR
DESIGNED BY:	WNR
CHECKED BY:	RW

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Sample Location Map

Figure 2

TABLES

Arthur Kill Correctional Facility
Phase II Investigation
Table 1 Spill # 01-05760 Area - Summary of Laboratory Analytical Results

LOCATION					BH-2		BH-4		BH-5		BH-5		BH-6	
SAMPLING DATE					3/26/2013		3/26/2013		3/26/2013		3/26/2013		3/26/2013	
LAB SAMPLE ID					L1305165-05		L1305165-06		L1305165-07		L1305165-08		L1305165-09	
SAMPLE DEPTH (ft.)					10-14 ft		15-20 ft		10-15 ft		17-20 ft		10-15 ft	
	NYS Part 375-6 Soil Cleanup Objectives													
	Commercial	Unrestricted	Residential	Units		Qual		Qual		Qual		Qual		Qual
General Chemistry - Westborough Lab														
Solids, Total				%	84.3		85.5		83.1		87.4		84	
Polychlorinated Biphenyls by GC - Westborough Lab														
Aroclor 1016	1	0.1	1	mg/kg	0.0392	U	0.0371	U	0.0399	U	0.037	U	0.0385	U
Aroclor 1221	1	0.1	1	mg/kg	0.0392	U	0.0371	U	0.0399	U	0.037	U	0.0385	U
Aroclor 1232	1	0.1	1	mg/kg	0.0392	U	0.0371	U	0.0399	U	0.037	U	0.0385	U
Aroclor 1242	1	0.1	1	mg/kg	0.0392	U	0.0371	U	0.0399	U	0.037	U	0.0385	U
Aroclor 1248	1	0.1	1	mg/kg	0.0392	U	0.0371	U	0.0399	U	0.037	U	0.0385	U
Aroclor 1254	1	0.1	1	mg/kg	0.0392	U	0.0371	U	0.0399	U	0.037	U	0.0385	U
Aroclor 1260	1	0.1	1	mg/kg	0.0392	U	0.0371	U	0.0399	U	0.037	U	0.0385	U
Semivolatile Organics by GC/MS - Westborough Lab														
1,2,4,5-Tetrachlorobenzene				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
1,2,4-Trichlorobenzene				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
1,2-Dichlorobenzene	500	1.1	100	mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
1,3-Dichlorobenzene	280	2.4	17	mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
1,4-Dichlorobenzene	130	1.8	9.8	mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
2,4,5-Trichlorophenol				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
2,4,6-Trichlorophenol				mg/kg	0.12	U	0.12	U	0.12	U	0.11	U	0.12	U
2,4-Dichlorophenol				mg/kg	0.18	U	0.17	U	0.18	U	0.17	U	0.18	U
2,4-Dimethylphenol				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
2,4-Dinitrophenol				mg/kg	0.94	U	0.93	U	0.95	U	0.89	U	0.94	U
2,4-Dinitrotoluene				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
2,6-Dinitrotoluene				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
2-Chloronaphthalene				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
2-Chlorophenol				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
2-Methylnaphthalene				mg/kg	0.24	U	0.23	U	**3.4**		0.22	U	**4**	
2-Methylphenol	500	0.33	100	mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
2-Nitroaniline				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
2-Nitrophenol				mg/kg	0.42	U	0.42	U	0.43	U	0.4	U	0.42	U
3,3'-Dichlorobenzidine				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
3-Methylphenol/4-Methylphenol	500	0.33	34	mg/kg	0.28	U	0.28	U	0.28	U	0.27	U	0.28	U
3-Nitroaniline				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
4,6-Dinitro-o-cresol				mg/kg	0.51	U	0.5	U	0.52	U	0.48	U	0.51	U
4-Bromophenyl phenyl ether				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
4-Chloroaniline				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
4-Chlorophenyl phenyl ether				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
4-Nitroaniline				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
4-Nitrophenol				mg/kg	0.28	U	0.27	U	0.28	U	0.26	U	0.27	U
Acenaphthene	500	20	100	mg/kg	0.16	U	0.15	U	0.16	U	0.15	U	0.16	U
Acenaphthylene	500	100	100	mg/kg	0.16	U	0.15	U	0.16	U	0.15	U	0.16	U
Acetophenone				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	**1.1**	
Anthracene	500	100	100	mg/kg	0.12	U	0.12	U	**0.066**	**J**	0.11	U	0.12	U
Benzo(a)anthracene	5.6	1	1	mg/kg	0.12	U	0.12	U	0.12	U	0.11	U	0.12	U
Benzo(a)pyrene	1	1	1	mg/kg	0.16	U	0.15	U	0.16	U	0.15	U	0.16	U
Benzo(b)fluoranthene	5.6	1	1	mg/kg	0.12	U	0.12	U	0.12	U	0.11	U	0.12	U
Benzo(ghi)perylene	500	100	100	mg/kg	0.16	U	0.15	U	0.16	U	0.15	U	0.16	U
Benzo(k)fluoranthene	56	0.8	1	mg/kg	0.12	U	0.12	U	0.12	U	0.11	U	0.12	U
Benzoic Acid				mg/kg	0.64	U	0.63	U	0.64	U	0.6	U	0.63	U
Benzyl Alcohol				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
Biphenyl				mg/kg	0.45	U	0.44	U	**0.28**	**J**	0.42	U	0.44	U
Bis(2-chloroethoxy)methane				mg/kg	0.21	U	0.21	U	0.21	U	0.2	U	0.21	U
Bis(2-chloroethyl)ether				mg/kg	0.18	U	0.17	U	0.18	U	0.17	U	0.18	U
Bis(2-chloroisopropyl)ether				mg/kg	0.24	U	0.23	U	0.24	U	0.22	U	0.23	U
Bis(2-Ethylhexyl)phthalate				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
Butyl benzyl phthalate				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
Carbazole				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
Chrysene	56	1	1	mg/kg	0.12	U	0.12	U	0.12	U	0.11	U	0.12	U
Di-n-butylphthalate				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
Di-n-octylphthalate				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
Dibenzo(a,h)anthracene	0.56	0.33	0.33	mg/kg	0.12	U	0.12	U	0.12	U	0.11	U	0.12	U
Dibenzofuran	350	7	14	mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
Diethyl phthalate				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
Dimethyl phthalate				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
Fluoranthene	500	100	100	mg/kg	0.12	U	0.12	U	0.12	U	0.11	U	0.12	U
Fluorene	500	30	100	mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	**0.54**	
Hexachlorobenzene	6	0.33	0.41	mg/kg	0.12	U	0.12	U	0.12	U	0.11	U	0.12	U
Hexachlorobutadiene				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
Hexachlorocyclopentadiene				mg/kg	0.56	U	0.55	U	0.57	U	0.53	U	0.56	U
Hexachloroethane				mg/kg	0.16	U	0.15	U	0.16	U	0.15	U	0.16	U
Indeno(1,2,3-cd)Pyrene	5.6	0.5	0.5	mg/kg	0.16	U	0.15	U	0.16	U	0.15	U	0.16	U
Isophorone				mg/kg	0.18	U	0.17	U	0.18	U	0.17	U	0.18	U
n-Nitrosodi-n-propylamine				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
Naphthalene	500	12	100	mg/kg	0.2	U	0.19	U	**0.25**		0.18	U	**0.95**	
Nitrobenzene				mg/kg	0.18	U	0.17	U	0.18	U	0.17	U	0.18	U
NitrosoDiPhenylAmine(NDPA)/DPA				mg/kg	0.16	U	0.15	U	0.16	U	0.15	U	0.16	U
P-Chloro-M-Cresol				mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
Pentachlorophenol	6.7	0.8	2.4	mg/kg	0.16	U	0.15	U	0.16	U	0.15	U	0.16	U
Phenanthrene	500	100	100	mg/kg	0.12	U	0.12	U	**0.76**		0.11	U	**0.97**	
Phenol	500	0.33	100	mg/kg	0.2	U	0.19	U	0.2	U	0.18	U	0.2	U
Pyrene	500	100	100	mg/kg	0.12	U	0.12	U	**0.13**		0.11	U	**0.33**	
Total Metals - Westborough Lab														
Arsenic, Total	16	13	16	mg/kg	**5.2**		**5**		**4.5**		**4.3**		**4.2**	
Barium, Total	400	350	350	mg/kg	**15**		**39**		**13**		**38**		**9.3**	
Cadmium, Total	9.3	2.5	2.5	mg/kg	**0.05**	**J**	0.46	U	0.47	U	**0.1**	**J**	0.46	U
Chromium, Total				mg/kg	**8**		**18**		**6**		**20**		**6.4**	
Lead, Total	1000	63	400	mg/kg	**4.2**		**8.6**		**3.3**		**9.7**		**3.2**	
Mercury, Total	2.8	0.18	0.81	mg/kg	0.08	U	0.09	U	0.08	U	0.07	U	0.09	U
Selenium, Total	1500	3.9	36	mg/kg	**0.6**	**J**	**0.56**	**J**	**0.46**	**J**	**0.53**	**J**	**0.44**	**J**
Silver, Total	1500	2	36	mg/kg	0.46	U	0.46	U	0.47	U	0.44	U	0.46	U

Notes: Detected compounds in bold . Highlighted and bold indicates number is over cleanup objective.
U = compound was not detected at the listed detection limit
J = listed concentration is estimated

Arthur Kill Correctional Facility
Phase II Investigation
Table 1 Spill # 01-05760 Area - Summary of Laboratory Analytical Results

LOCATION					BH-2		BH-4		BH-5		BH-5		BH-6	
SAMPLING DATE					3/26/2013		3/26/2013		3/26/2013		3/26/2013		3/26/2013	
LAB SAMPLE ID					L1305165-05		L1305165-06		L1305165-07		L1305165-08		L1305165-09	
SAMPLE DEPTH (ft.)					10-14 ft		15-20 ft		10-15 ft		17-20 ft		10-15 ft	
	NYS Part 375-6 Soil Cleanup Objectives													
	Commercial	Unrestricted	Residential	Units		Qual		Qual		Qual		Qual		Qual
Volatile Organics by GC/MS - Westborough Lab														
1,1,1,2-Tetrachloroethane				mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
1,1,1-Trichloroethane	500	0.68	100	mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
1,1,2,2-Tetrachloroethane				mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
1,1,2-Trichloroethane				mg/kg	0.0018	U	0.0018	U	0.09	U	0.0017	U	0.18	U
1,1-Dichloroethane	240	0.27	19	mg/kg	0.0018	U	0.0018	U	0.09	U	0.0017	U	0.18	U
1,1-Dichloroethene	500	0.33	100	mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
1,1-Dichloropropene				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
1,2,3-Trichlorobenzene				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
1,2,3-Trichloropropane				mg/kg	0.012	U	0.012	U	0.6	U	0.011	U	1.2	U
1,2,4,5-Tetramethylbenzene				mg/kg	**0.012**		0.0047	U	**0.62**		0.0046	U	**1**	
1,2,4-Trichlorobenzene				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
1,2,4-Trimethylbenzene	190	3.6	47	mg/kg	**0.0042**	**J**	0.0058	U	**1.1**		0.0057	U	**1.6**	
1,2-Dibromo-3-chloropropane				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
1,2-Dibromoethane				mg/kg	0.0047	U	0.0047	U	0.24	U	0.0046	U	0.48	U
1,2-Dichlorobenzene	500	1.1	100	mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
1,2-Dichloroethane	30	0.02	2.3	mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
1,2-Dichloropropane				mg/kg	0.0042	U	0.0041	U	0.21	U	0.004	U	0.42	U
1,3,5-Trimethylbenzene	190	8.4	47	mg/kg	0.0059	U	0.0058	U	**0.32**		0.0057	U	**0.61**	
1,3-Dichlorobenzene	280	2.4	17	mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
1,3-Dichloropropane				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
1,4-Dichlorobenzene	130	1.8	9.8	mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
1,4-Diethylbenzene				mg/kg	0.0047	U	0.0047	U	**1.3**		0.0046	U	**2.6**	
1,4-Dioxane	130	0.1	9.8	mg/kg	0.12	U	0.12	U	6	U	0.11	U	12	U
2,2-Dichloropropane				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
2-Butanone	500	0.12	100	mg/kg	**0.0022**	**J**	0.012	U	0.6	U	0.011	U	1.2	U
2-Hexanone				mg/kg	0.012	U	0.012	U	0.6	U	0.011	U	1.2	U
4-Ethyltoluene				mg/kg	**0.00072**	**J**	0.0047	U	**0.6**		0.0046	U	**0.88**	
4-Methyl-2-pentanone				mg/kg	0.012	U	0.012	U	0.6	U	0.011	U	1.2	U
Acetone	500	0.05	100	mg/kg	**0.018**		0.012	U	0.6	U	0.011	U	1.2	U
Acrylonitrile				mg/kg	0.012	U	0.012	U	0.6	U	0.011	U	1.2	U
Benzene	44	0.06	2.9	mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
Bromobenzene				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
Bromochloromethane				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
Bromodichloromethane				mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
Bromoform				mg/kg	0.0047	U	0.0047	U	0.24	U	0.0046	U	0.48	U
Bromomethane				mg/kg	0.0024	U	0.0023	U	0.12	U	0.0023	U	0.24	U
Carbon disulfide				mg/kg	0.012	U	0.012	U	0.6	U	0.011	U	1.2	U
Carbon tetrachloride	22	0.76	1.4	mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
Chlorobenzene	500	1.1	100	mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
Chloroethane				mg/kg	0.0024	U	0.0023	U	0.12	U	0.0023	U	0.24	U
Chloroform	350	0.37	10	mg/kg	0.0018	U	0.0018	U	0.09	U	0.0017	U	0.18	U
Chloromethane				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
cis-1,2-Dichloroethene	500	0.25	59	mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
cis-1,3-Dichloropropene				mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
Dibromochloromethane				mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
Dibromomethane				mg/kg	0.012	U	0.012	U	0.6	U	0.011	U	1.2	U
Dichlorodifluoromethane				mg/kg	0.012	U	0.012	U	0.6	U	0.011	U	1.2	U
Ethyl ether				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
Ethylbenzene	390	1	30	mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
Hexachlorobutadiene				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
Isopropylbenzene				mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
Methyl tert butyl ether	500	0.93	62	mg/kg	0.0024	U	0.0023	U	0.12	U	0.0023	U	0.24	U
Methylene chloride	500	0.05	51	mg/kg	0.012	U	0.012	U	0.6	U	0.011	U	1.2	U
n-Butylbenzene	500	12	100	mg/kg	**0.0027**		0.0012	U	**0.25**		0.0011	U	**0.16**	
n-Propylbenzene	500	3.9	100	mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
Naphthalene	500	12	100	mg/kg	**0.0099**		0.0058	U	**0.36**		0.0057	U	**1.1**	
o-Chlorotoluene				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
o-Xylene	500	0.26	100	mg/kg	0.0024	U	0.0023	U	0.12	U	0.0023	U	0.24	U
p-Chlorotoluene				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
p-Isopropyltoluene				mg/kg	**0.0011**	**J**	0.0012	U	**0.12**		0.0011	U	**0.15**	
p/m-Xylene	500	0.26	100	mg/kg	0.0024	U	0.0023	U	0.12	U	0.0023	U	**0.1**	**J**
sec-Butylbenzene	500	11	100	mg/kg	0.0012	U	0.0012	U	**0.11**		0.0011	U	**0.095**	**J**
Styrene				mg/kg	0.0024	U	0.0023	U	0.12	U	0.0023	U	0.24	U
tert-Butylbenzene	500	5.9	100	mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
Tetrachloroethene	150	1.3	5.5	mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
Toluene	500	0.7	100	mg/kg	0.0018	U	0.0018	U	0.09	U	0.0017	U	0.18	U
trans-1,2-Dichloroethene	500	0.19	100	mg/kg	0.0018	U	0.0018	U	0.09	U	0.0017	U	0.18	U
trans-1,3-Dichloropropene				mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
trans-1,4-Dichloro-2-butene				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
Trichloroethene	200	0.47	10	mg/kg	0.0012	U	0.0012	U	0.06	U	0.0011	U	0.12	U
Trichlorofluoromethane				mg/kg	0.0059	U	0.0058	U	0.3	U	0.0057	U	0.6	U
Vinyl acetate				mg/kg	0.012	U	0.012	U	0.6	U	0.011	U	1.2	U
Vinyl chloride	13	0.02	0.21	mg/kg	0.0024	U	0.0023	U	0.12	U	0.0023	U	0.24	U

Notes: Detected compounds in bold . Highlighted and bold indicates number is over cleanup objective.
U = compound was not detected at the listed detection limit
J = listed concentration is estimated

Arthur Kill Correctional Facility
Phase II Investigation
Table 2 Heating Oil/UST Area - Summary of Laboratory Analytical Results

LOCATION					BH-8 10-15		BH-10		BH-11		BH-13		BH-14 10-15	
SAMPLING DATE					3/27/2013		3/27/2013		3/27/2013		3/27/2013		3/27/2013	
LAB SAMPLE ID					L1305165-14		L1305165-10		L1305165-11		L1305165-12		L1305165-13	
SAMPLE DEPTH (ft.)					10-15 ft		10-15 ft		10-15 ft		10-15 ft		10-15 ft	
	NYS Part 375-6 Soil Cleanup Objectives													
	Commercial	Unrestricted	Residential	Units		Qual		Qual		Qual		Qual		Qual
General Chemistry - Westborough Lab														
Solids, Total				%	80.7		80.9		83		80.8		77.6	
Polychlorinated Biphenyls by GC - Westborough Lab														
Aroclor 1016	1	0.1	1	mg/kg	0.0394	U	0.0406	U	0.0387	U	0.039	U	0.041	U
Aroclor 1221	1	0.1	1	mg/kg	0.0394	U	0.0406	U	0.0387	U	0.039	U	0.041	U
Aroclor 1232	1	0.1	1	mg/kg	0.0394	U	0.0406	U	0.0387	U	0.039	U	0.041	U
Aroclor 1242	1	0.1	1	mg/kg	0.0394	U	0.0406	U	0.0387	U	0.039	U	0.041	U
Aroclor 1248	1	0.1	1	mg/kg	0.0394	U	0.0406	U	0.0387	U	0.039	U	0.041	U
Aroclor 1254	1	0.1	1	mg/kg	0.0394	U	0.0406	U	0.0387	U	0.039	U	0.041	U
Aroclor 1260	1	0.1	1	mg/kg	0.0394	U	0.0406	U	0.0387	U	0.039	U	0.041	U
Semivolatile Organics by GC/MS - Westborough Lab														
1,2,4,5-Tetrachlorobenzene				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
1,2,4-Trichlorobenzene				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
1,2-Dichlorobenzene	500	1.1	100	mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
1,3-Dichlorobenzene	280	2.4	17	mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
1,4-Dichlorobenzene	130	1.8	9.8	mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
2,4,5-Trichlorophenol				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
2,4,6-Trichlorophenol				mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.13	U
2,4-Dichlorophenol				mg/kg	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U
2,4-Dimethylphenol				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
2,4-Dinitrophenol				mg/kg	0.97	U	0.96	U	0.94	U	0.97	U	1	U
2,4-Dinitrotoluene				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
2,6-Dinitrotoluene				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
2-Chloronaphthalene				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
2-Chlorophenol				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
2-Methylnaphthalene				mg/kg	0.24	U	0.24	U	0.24	U	0.24	U	**6.5**	
2-Methylphenol	500	0.33	100	mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
2-Nitroaniline				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
2-Nitrophenol				mg/kg	0.44	U	0.43	U	0.42	U	0.44	U	0.46	U
3,3'-Dichlorobenzidine				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
3-Methylphenol/4-Methylphenol	500	0.33	34	mg/kg	0.29	U	0.29	U	0.28	U	0.29	U	0.3	U
3-Nitroaniline				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
4,6-Dinitro-o-cresol				mg/kg	0.53	U	0.52	U	0.51	U	0.52	U	0.55	U
4-Bromophenyl phenyl ether				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
4-Chloroaniline				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
4-Chlorophenyl phenyl ether				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
4-Nitroaniline				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
4-Nitrophenol				mg/kg	0.28	U	0.28	U	0.28	U	0.28	U	0.3	U
Acenaphthene	500	20	100	mg/kg	0.16	U	0.16	U	0.16	U	0.16	U	0.17	U
Acenaphthylene	500	100	100	mg/kg	0.16	U	0.16	U	0.16	U	0.16	U	0.17	U
Acetophenone				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Anthracene	500	100	100	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	**0.17**	
Benzo(a)anthracene	5.6	1	1	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.13	U
Benzo(a)pyrene	1	1	1	mg/kg	0.16	U	0.16	U	0.16	U	0.16	U	0.17	U
Benzo(b)fluoranthene	5.6	1	1	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.13	U
Benzo(ghi)perylene	500	100	100	mg/kg	0.16	U	0.16	U	0.16	U	0.16	U	0.17	U
Benzo(k)fluoranthene	56	0.8	1	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.13	U
Benzoic Acid				mg/kg	0.66	U	0.65	U	0.64	U	0.65	U	0.68	U
Benzyl Alcohol				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Biphenyl				mg/kg	0.46	U	0.46	U	0.45	U	0.46	U	**0.4**	**J**
Bis(2-chloroethoxy)methane				mg/kg	0.22	U	0.22	U	0.21	U	0.22	U	0.23	U
Bis(2-chloroethyl)ether				mg/kg	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U
Bis(2-chloroisopropyl)ether				mg/kg	0.24	U	0.24	U	0.24	U	0.24	U	0.25	U
Bis(2-Ethylhexyl)phthalate				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Butyl benzyl phthalate				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Carbazole				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Chrysene	56	1	1	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.13	U
Di-n-butylphthalate				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Di-n-octylphthalate				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Dibenzo(a,h)anthracene	0.56	0.33	0.33	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.13	U
Dibenzofuran	350	7	14	mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Diethyl phthalate				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Dimethyl phthalate				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Fluoranthene	500	100	100	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.13	U
Fluorene	500	30	100	mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Hexachlorobenzene	6	0.33	0.41	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	0.13	U
Hexachlorobutadiene				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Hexachlorocyclopentadiene				mg/kg	0.58	U	0.58	U	0.56	U	0.58	U	0.61	U
Hexachloroethane				mg/kg	0.16	U	0.16	U	0.16	U	0.16	U	0.17	U
Indeno(1,2,3-cd)Pyrene	5.6	0.5	0.5	mg/kg	0.16	U	0.16	U	0.16	U	0.16	U	0.17	U
Isophorone			100	mg/kg	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U
n-Nitrosodi-n-propylamine				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Naphthalene	500	12	100	mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Nitrobenzene				mg/kg	0.18	U	0.18	U	0.18	U	0.18	U	0.19	U
NitrosoDiPhenylAmine(NDPA)/DPA				mg/kg	0.16	U	0.16	U	0.16	U	0.16	U	0.17	U
P-Chloro-M-Cresol				mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Pentachlorophenol	6.7	0.8	2.4	mg/kg	0.16	U	0.16	U	0.16	U	0.16	U	0.17	U
Phenanthrene	500	100	100	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	**1.6**	
Phenol	500	0.33	100	mg/kg	0.2	U	0.2	U	0.2	U	0.2	U	0.21	U
Pyrene	500	100	100	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	**0.29**	
Total Metals - Westborough Lab														
Arsenic, Total	16	13	16	mg/kg	**5**		**0.16**		**4.4**		**4.3**		**6.3**	
Barium, Total	400	350	350	mg/kg	**7.3**		**0.18**		**7.7**		**6.8**		**10**	
Cadmium, Total	9.3	2.5	2.5	mg/kg	0.48	U	0.02	U	0.46	U	0.48	U	**0.23**	**J**
Chromium, Total				mg/kg	**7.5**		**0.25**		**6.3**		**6.4**		**9.1**	
Lead, Total	1000	63	400	mg/kg	**2.4**		**0.08**		**2.5**		**2.3**	**J**	**2.9**	
Mercury, Total	2.8	0.18	0.81	mg/kg	0.1	U	0.09	U	0.09	U	0.09	U	0.1	U
Selenium, Total	1500	3.9	36	mg/kg	**0.61**	**J**	**0.02**	**J**	**0.56**	**J**	**0.45**	**J**	**0.65**	**J**
Silver, Total	1500	2	36	mg/kg	**0.48**	U	0.02	U	0.46	U	0.48	U	0.49	U

Note: Detected compounds in bold . Highlighted and bold indicates number is over cleanup objective.
U = compound was not detected at the listed detection limit
J = listed concentration is estimated

Arthur Kill Correctional Facility
Phase II Investigation
Table 2 Heating Oil/UST Area - Summary of Laboratory Analytical Results

LOCATION					BH-8 10-15		BH-10		BH-11		BH-13		BH-14 10-15	
SAMPLING DATE					3/27/2013		3/27/2013		3/27/2013		3/27/2013		3/27/2013	
LAB SAMPLE ID					L1305165-14		L1305165-10		L1305165-11		L1305165-12		L1305165-13	
SAMPLE DEPTH (ft.)					10-15 ft		10-15 ft		10-15 ft		10-15 ft		10-15 ft	
	NYS Part 375-6 Soil Cleanup Objectives													
	Commercial	Unrestricted	Residential	Units		Qual		Qual		Qual		Qual		Qual
Volatile Organics by GC/MS - Westborough Lab														
1,1,1,2-Tetrachloroethane				mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
1,1,1-Trichloroethane	500	0.68	100	mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
1,1,2,2-Tetrachloroethane				mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
1,1,2-Trichloroethane				mg/kg	0.0018	U	0.0018	U	0.0018	U	0.0018	U	0.48	U
1,1-Dichloroethane	240	0.27	19	mg/kg	0.0018	U	0.0018	U	0.0018	U	0.0018	U	0.48	U
1,1-Dichloroethene	500	0.33	100	mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
1,1-Dichloropropene				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
1,2,3-Trichlorobenzene				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
1,2,3-Trichloropropane				mg/kg	0.012	U	0.012	U	0.012	U	0.012	U	3.2	U
1,2,4,5-Tetramethylbenzene				mg/kg	0.005	U	0.0049	U	0.0048	U	0.005	U	8.5	
1,2,4-Trichlorobenzene				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
1,2,4-Trimethylbenzene	190	3.6	47	mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	**12**	
1,2-Dibromo-3-chloropropane				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
1,2-Dibromoethane				mg/kg	0.005	U	0.0049	U	0.0048	U	0.005	U	1.3	U
1,2-Dichlorobenzene	500	1.1	100	mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
1,2-Dichloroethane	30	0.02	2.3	mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
1,2-Dichloropropane				mg/kg	0.0043	U	0.0043	U	0.0042	U	0.0043	U	1.1	U
1,3,5-Trimethylbenzene	190	8.4	47	mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	**2.5**	
1,3-Dichlorobenzene	280	2.4	17	mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
1,3-Dichloropropane				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
1,4-Dichlorobenzene	130	1.8	9.8	mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
1,4-Diethylbenzene				mg/kg	0.005	U	0.0049	U	0.0048	U	0.005	U	**13**	
1,4-Dioxane	130	0.1	9.8	mg/kg	0.12	U	0.12	U	0.12	U	0.12	U	32	U
2,2-Dichloropropane				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
2-Butanone	500	0.12	100	mg/kg	0.012	U	0.012	U	0.012	U	0.012	U	3.2	U
2-Hexanone				mg/kg	0.012	U	0.012	U	0.012	U	0.012	U	3.2	U
4-Ethyltoluene				mg/kg	0.005	U	0.0049	U	0.0048	U	0.005	U	**0.5**	**J**
4-Methyl-2-pentanone				mg/kg	0.012	U	0.012	U	0.012	U	0.012	U	3.2	U
Acetone	500	0.05	100	mg/kg	0.012	U	0.012	U	0.012	U	0.012	U	3.2	U
Acrylonitrile				mg/kg	0.012	U	0.012	U	0.012	U	0.012	U	3.2	U
Benzene	44	0.06	2.9	mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
Bromobenzene				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
Bromochloromethane				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
Bromodichloromethane				mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
Bromoform				mg/kg	0.005	U	0.0049	U	0.0048	U	0.005	U	1.3	U
Bromomethane				mg/kg	0.0025	U	0.0025	U	0.0024	U	0.0025	U	0.64	U
Carbon disulfide				mg/kg	0.012	U	0.012	U	0.012	U	0.012	U	3.2	U
Carbon tetrachloride	22	0.76	1.4	mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
Chlorobenzene	500	1.1	100	mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
Chloroethane				mg/kg	0.0025	U	0.0025	U	0.0024	U	0.0025	U	0.64	U
Chloroform	350	0.37	10	mg/kg	0.0018	U	0.0018	U	0.0018	U	0.0018	U	0.48	U
Chloromethane				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
cis-1,2-Dichloroethene	500	0.25	59	mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
cis-1,3-Dichloropropene				mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
Dibromochloromethane				mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
Dibromomethane				mg/kg	0.012	U	0.012	U	0.012	U	0.012	U	3.2	U
Dichlorodifluoromethane				mg/kg	0.012	U	0.012	U	0.012	U	0.012	U	3.2	U
Ethyl ether				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
Ethylbenzene	390	1	30	mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
Hexachlorobutadiene				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
Isopropylbenzene				mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	**0.33**	
Methyl tert butyl ether	500	0.93	62	mg/kg	0.0025	U	0.0025	U	0.0024	U	0.0025	U	0.64	U
Methylene chloride	500	0.05	51	mg/kg	0.012	U	0.012	U	0.012	U	0.012	U	3.2	U
n-Butylbenzene	500	12	100	mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	**2.2**	
n-Propylbenzene	500	3.9	100	mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	**1.2**	
Naphthalene	500	12	100	mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	**5.3**	
o-Chlorotoluene				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
o-Xylene	500	0.26	100	mg/kg	0.0025	U	0.0025	U	0.0024	U	0.0025	U	0.64	U
p-Chlorotoluene				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
p-Isopropyltoluene				mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	1.6	
p/m-Xylene	500	0.26	100	mg/kg	0.0025	U	0.0025	U	0.0024	U	0.0025	U	0.64	U
sec-Butylbenzene	500	11	100	mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	**1.1**	
Styrene				mg/kg	0.0025	U	0.0025	U	0.0024	U	0.0025	U	0.64	U
tert-Butylbenzene	500	5.9	100	mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
Tetrachloroethene	150	1.3	5.5	mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
Toluene	500	0.7	100	mg/kg	0.0018	U	0.0018	U	0.0018	U	0.0018	U	0.48	U
trans-1,2-Dichloroethene	500	0.19	100	mg/kg	0.0018	U	0.0018	U	0.0018	U	0.0018	U	0.48	U
trans-1,3-Dichloropropene				mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
trans-1,4-Dichloro-2-butene				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
Trichloroethene	200	0.47	10	mg/kg	0.0012	U	0.0012	U	0.0012	U	0.0012	U	0.32	U
Trichlorofluoromethane				mg/kg	0.0062	U	0.0062	U	0.006	U	0.0062	U	1.6	U
Vinyl acetate				mg/kg	0.012	U	0.012	U	0.012	U	0.012	U	3.2	U
Vinyl chloride	13	0.02	0.21	mg/kg	0.0025	U	0.0025	U	0.0024	U	0.0025	U	0.64	U

Note: Detected compounds in bold . Highlighted and bold indicates number is over cleanup objective.
U = compound was not detected at the listed detection limit
J = listed concentration is estimated

Arthur Kill Correctional Facility
Phase II Investigation
Table 3 Service Station Area - Summary of Laboratory Analytical Results

LOCATION						BH-15		BH 16		BH 18		BH 19	
SAMPLING DATE						3/27/2013		3/27/2013		3/27/2013		3/27/2013	
LAB SAMPLE ID						L1305165-01		L1305165-02		L1305165-03		L1305165-04	
SAMPLE DEPTH (ft.)						10-12 ft		10-12 ft		10-13 ft		10-13 ft	
	NYS Part 375-6 Soil Cleanup Objectives												
	Commercial	Unrestricted	Residential	CP-51	Units		Qual		Qual		Qual		Qual
General Chemistry - Westborough Lab													
Solids, Total					%	83.3		77.5		82.6		85.7	
Polychlorinated Biphenyls by GC - Westborough Lab													
Aroclor 1016	1	0.1	1		mg/kg	0.0376	U	0.041	U	0.0382	U	0.0367	U
Aroclor 1221	1	0.1	1		mg/kg	0.0376	U	0.041	U	0.0382	U	0.0367	U
Aroclor 1232	1	0.1	1		mg/kg	0.0376	U	0.041	U	0.0382	U	0.0367	U
Aroclor 1242	1	0.1	1		mg/kg	0.0376	U	0.041	U	0.0382	U	0.0367	U
Aroclor 1248	1	0.1	1		mg/kg	0.0376	U	0.041	U	0.0382	U	0.0367	U
Aroclor 1254	1	0.1	1		mg/kg	0.0376	U	0.041	U	0.0382	U	0.0367	U
Aroclor 1260	1	0.1	1		mg/kg	0.0376	U	0.041	U	0.0382	U	0.0367	U
Semivolatile Organics by GC/MS - Westborough Lab													
1,2,4,5-Tetrachlorobenzene					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
1,2,4-Trichlorobenzene					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
1,2-Dichlorobenzene	500	1.1	100		mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
1,3-Dichlorobenzene	280	2.4	17		mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
1,4-Dichlorobenzene	130	1.8	9.8		mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
2,4,5-Trichlorophenol					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
2,4,6-Trichlorophenol					mg/kg	0.12	U	0.13	U	0.12	U	0.11	U
2,4-Dichlorophenol					mg/kg	0.18	U	0.19	U	0.18	U	0.17	U
2,4-Dimethylphenol					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
2,4-Dinitrophenol					mg/kg	0.94	U	1	U	0.96	U	0.9	U
2,4-Dinitrotoluene					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
2,6-Dinitrotoluene					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
2-Chloronaphthalene					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
2-Chlorophenol					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
2-Methylnaphthalene					mg/kg	0.24	U	0.25	U	0.24	U	0.22	U
2-Methylphenol	500	0.33	100		mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
2-Nitroaniline					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
2-Nitrophenol					mg/kg	0.42	U	0.46	U	0.43	U	0.41	U
3,3'-Dichlorobenzidine					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
3-Methylphenol/4-Methylphenol	500	0.33	34		mg/kg	0.28	U	0.3	U	0.29	U	0.27	U
3-Nitroaniline					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
4,6-Dinitro-o-cresol					mg/kg	0.51	U	0.55	U	0.52	U	0.49	U
4-Bromophenyl phenyl ether					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
4-Chloroaniline					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
4-Chlorophenyl phenyl ether					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
4-Nitroaniline					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
4-Nitrophenol					mg/kg	0.27	U	0.3	U	0.28	U	0.26	U
Acenaphthene	500	20	100	20	mg/kg	0.16	U	0.17	U	0.16	U	0.15	U
Acenaphthylene	500	100	100	100	mg/kg	0.16	U	0.17	U	0.16	U	0.15	U
Acetophenone					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Anthracene	500	100	100	100	mg/kg	0.12	U	0.13	U	0.12	U	0.11	U
Benzo(a)anthracene	5.6	1	1	1	mg/kg	0.12	U	0.13	U	0.12	U	0.11	U
Benzo(a)pyrene	1	1	1	1	mg/kg	0.16	U	0.17	U	0.16	U	0.15	U
Benzo(b)fluoranthene	5.6	1	1	1	mg/kg	0.12	U	0.13	U	0.12	U	0.11	U
Benzo(ghi)perylene	500	100	100	100	mg/kg	0.16	U	0.17	U	0.16	U	0.15	U
Benzo(k)fluoranthene	56	0.8	1	0.8	mg/kg	0.12	U	0.13	U	0.12	U	0.11	U
Benzoic Acid					mg/kg	0.63	U	0.68	U	0.64	U	0.61	U
Benzyl Alcohol					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Biphenyl					mg/kg	0.45	U	0.48	U	0.45	U	0.43	U
Bis(2-chloroethoxy)methane					mg/kg	0.21	U	0.23	U	0.21	U	0.2	U
Bis(2-chloroethyl)ether					mg/kg	0.18	U	0.19	U	0.18	U	0.17	U
Bis(2-chloroisopropyl)ether					mg/kg	0.24	U	0.25	U	0.24	U	0.22	U
Bis(2-Ethylhexyl)phthalate					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Butyl benzyl phthalate					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Carbazole					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Chrysene	56	1	1	1	mg/kg	0.12	U	0.13	U	0.12	U	0.11	U
Di-n-butylphthalate					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Di-n-octylphthalate					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Dibenzo(a,h)anthracene	0.56	0.33	0.33	0.33	mg/kg	0.12	U	0.13	U	0.12	U	0.11	U
Dibenzofuran	350	7	14		mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Diethyl phthalate					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Dimethyl phthalate					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Fluoranthene	500	100	100	100	mg/kg	0.12	U	0.13	U	0.12	U	0.11	U
Fluorene	500	30	100	30	mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Hexachlorobenzene	6	0.33	0.41		mg/kg	0.12	U	0.13	U	0.12	U	0.11	U
Hexachlorobutadiene					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Hexachlorocyclopentadiene					mg/kg	0.56	U	0.6	U	0.57	U	0.54	U
Hexachloroethane					mg/kg	0.16	U	0.17	U	0.16	U	0.15	U
Indeno(1,2,3-cd)Pyrene	5.6	0.5	0.5	0.5	mg/kg	0.16	U	0.17	U	0.16	U	0.15	U
Isophorone					mg/kg	0.18	U	0.19	U	0.18	U	0.17	U
n-Nitrosodi-n-propylamine					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Naphthalene	500	12	100	12	mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Nitrobenzene	69				mg/kg	0.18	U	0.19	U	0.18	U	0.17	U
NitrosoDiPhenylAmine(NDPA)/DPA					mg/kg	0.16	U	0.17	U	0.16	U	0.15	U
P-Chloro-M-Cresol					mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Pentachlorophenol	6.7	0.8	2.4		mg/kg	0.16	U	0.17	U	0.16	U	0.15	U
Phenanthrene	500	100	100	100	mg/kg	0.12	U	0.13	U	0.12	U	0.11	U
Phenol	500	0.33	100		mg/kg	0.2	U	0.21	U	0.2	U	0.19	U
Pyrene	500	100	100	100	mg/kg	0.12	U	0.13	U	0.12	U	0.11	U
Total Metals - Westborough Lab													
Arsenic, Total	16	13	16		mg/kg	**5.2**		**4.2**		**4.9**		**4.5**	
Barium, Total	400	350	350		mg/kg	**11**		**12**		**8.6**		**8.4**	
Cadmium, Total	9.3	2.5	2.5		mg/kg	**0.1**	**J**	0.5	U	0.47	U	0.44	U
Chromium, Total					mg/kg	**7.4**		**6.2**		**7.8**		**6.2**	
Lead, Total	1000	63	400		mg/kg	**3**		**2.5**		**3**		**2.4**	
Mercury, Total	2.8	0.18	0.81		mg/kg	0.09	U	0.1	U	0.1	U	0.1	U
Selenium, Total	1500	3.9	36		mg/kg	**0.73**	**J**	**0.42**	**J**	**0.41**	**J**	**0.6**	**J**
Silver, Total	1500	2	36		mg/kg	0.46	U	**0.5**	U	0.47	U	0.44	U

Note: Detected compounds in bold . Highlighted and bold indicates number is over cleanup objective.
U = compound was not detected at the listed detection limit
J = listed concentration is estimated

Arthur Kill Correctional Facility
Phase II Investigation
Table 3 Service Station Area - Summary of Laboratory Analytical Results

LOCATION						BH-15		BH 16		BH 18		BH 19	
SAMPLING DATE						3/27/2013		3/27/2013		3/27/2013		3/27/2013	
LAB SAMPLE ID						L1305165-01		L1305165-02		L1305165-03		L1305165-04	
SAMPLE DEPTH (ft.)						10-12 ft		10-12 ft		10-13 ft		10-13 ft	
	NYS Part 375-6 Soil Cleanup Objectives												
	Commercial	Unrestricted	Residential	CP-51	Units		Qual		Qual		Qual		Qual
Volatile Organics by GC/MS - Westborough Lab													
1,1,1,2-Tetrachloroethane					mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
1,1,1-Trichloroethane	500	0.68	100		mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
1,1,2,2-Tetrachloroethane					mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
1,1,2-Trichloroethane					mg/kg	0.0018	U	0.0019	U	0.0018	U	0.0018	U
1,1-Dichloroethane	240	0.27	19		mg/kg	0.0018	U	0.0019	U	0.0018	U	0.0018	U
1,1-Dichloroethene	500	0.33	100		mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
1,1-Dichloropropene					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
1,2,3-Trichlorobenzene					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
1,2,3-Trichloropropane					mg/kg	0.012	U	0.013	U	0.012	U	0.012	U
1,2,4,5-Tetramethylbenzene					mg/kg	0.0048	U	0.0052	U	0.0048	U	0.0047	U
1,2,4-Trichlorobenzene					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
1,2,4-Trimethylbenzene	190	3.6	47	3.6	mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
1,2-Dibromo-3-chloropropane					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
1,2-Dibromoethane					mg/kg	0.0048	U	0.0052	U	0.0048	U	0.0047	U
1,2-Dichlorobenzene	500	1.1	100		mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
1,2-Dichloroethane	30	0.02	2.3		mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
1,2-Dichloropropane					mg/kg	0.0042	U	0.0045	U	0.0042	U	0.0041	U
1,3,5-Trimethylbenzene	190	8.4	47	8.4	mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
1,3-Dichlorobenzene	280	2.4	17		mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
1,3-Dichloropropane					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
1,4-Dichlorobenzene	130	1.8	9.8		mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
1,4-Diethylbenzene					mg/kg	0.0048	U	0.0052	U	0.0048	U	0.0047	U
1,4-Dioxane	130	0.1	9.8		mg/kg	0.12	U	0.13	U	0.12	U	0.12	U
2,2-Dichloropropane					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
2-Butanone	500	0.12	100		mg/kg	0.012	U	**0.00096**	**J**	0.012	U	0.012	U
2-Hexanone					mg/kg	0.012	U	0.013	U	0.012	U	0.012	U
4-Ethyltoluene					mg/kg	0.0048	U	0.0052	U	0.0048	U	0.0047	U
4-Methyl-2-pentanone					mg/kg	0.012	U	0.013	U	0.012	U	0.012	U
Acetone	500	0.05	100		mg/kg	0.012	U	0.013	U	0.012	U	0.012	U
Acrylonitrile					mg/kg	0.012	U	0.013	U	0.012	U	0.012	U
Benzene	44	0.06	2.9	0.06	mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
Bromobenzene					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
Bromochloromethane					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
Bromodichloromethane					mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
Bromoform					mg/kg	0.0048	U	0.0052	U	0.0048	U	0.0047	U
Bromomethane					mg/kg	0.0024	U	0.0026	U	0.0024	U	0.0023	U
Carbon disulfide					mg/kg	0.012	U	0.013	U	0.012	U	0.012	U
Carbon tetrachloride	22	0.76	1.4		mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
Chlorobenzene	500	1.1	100		mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
Chloroethane					mg/kg	0.0024	U	0.0026	U	0.0024	U	0.0023	U
Chloroform	350	0.37	10		mg/kg	0.0018	U	0.0019	U	0.0018	U	0.0018	U
Chloromethane					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
cis-1,2-Dichloroethene	500	0.25	59		mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
cis-1,3-Dichloropropene					mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
Dibromochloromethane					mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
Dibromomethane					mg/kg	0.012	U	0.013	U	0.012	U	0.012	U
Dichlorodifluoromethane					mg/kg	0.012	U	0.013	U	0.012	U	0.012	U
Ethyl ether					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
Ethylbenzene	390	1	30	1	mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
Hexachlorobutadiene					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
Isopropylbenzene				2.3	mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
Methyl tert butyl ether	500	0.93	62	0.93	mg/kg	0.0024	U	0.0026	U	0.0024	U	0.0023	U
Methylene chloride	500	0.05	51		mg/kg	0.012	U	0.013	U	0.012	U	0.012	U
n-Butylbenzene	500	12	100	12	mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
n-Propylbenzene	500	3.9	100	3.9	mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
Naphthalene	500	12	100	12	mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
o-Chlorotoluene					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
o-Xylene	500	0.26	100	0.26	mg/kg	0.0024	U	0.0026	U	0.0024	U	0.0023	U
p-Chlorotoluene					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
p-Isopropyltoluene				10	mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
p/m-Xylene	500	0.26	100	0.26	mg/kg	0.0024	U	0.0026	U	0.0024	U	0.0023	U
sec-Butylbenzene	500	11	100	11	mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
Styrene					mg/kg	0.0024	U	0.0026	U	0.0024	U	0.0023	U
tert-Butylbenzene	500	5.9	100	5.9	mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
Tetrachloroethene	150	1.3	5.5		mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
Toluene	500	0.7	100	0.7	mg/kg	0.0018	U	0.0019	U	0.0018	U	0.0018	U
trans-1,2-Dichloroethene	500	0.19	100		mg/kg	0.0018	U	0.0019	U	0.0018	U	0.0018	U
trans-1,3-Dichloropropene					mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
trans-1,4-Dichloro-2-butene					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
Trichloroethene	200	0.47	10		mg/kg	0.0012	U	0.0013	U	0.0012	U	0.0012	U
Trichlorofluoromethane					mg/kg	0.006	U	0.0064	U	0.006	U	0.0058	U
Vinyl acetate					mg/kg	0.012	U	0.013	U	0.012	U	0.012	U
Vinyl chloride	13	0.02	0.21		mg/kg	0.0024	U	0.0026	U	0.0024	U	0.0023	U

Note: Detected compounds in bold . Highlighted and bold indicates number is over cleanup objective.
U = compound was not detected at the listed detection limit
J = listed concentration is estimated

APPENDIX A

Subsurface Boring Logs

C&S COMPANIES
ENGINEERS
DESIGN BUILD
TECHNICAL RESOURCES
OPERATIONS

C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212
Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-1
Project: Arthur Kill Correctional Facilty Phase II
Client: OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Page: 1 of 1
Date: 03/26/13
Location: Spill # 01-05760 Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
		5- 6" black asphalt	All Readings on PID were 0.0 ppm at each interval	
2				2
4				4
6				6
8		0.5 - 13 ft. - moist, tan, reddish fine to medium SAND, trace gravel		8
10				10
12				12
14		13 - 15 ft - red SILT, trace sand and gravel, wet		14
16		15 - 17 ft - red to tan wet, fine to coarse SAND and GRAVEL		16
18		refusal @ 17 ft.		18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

C&S COMPANIES
ENGINEERS
DESIGN BUILD
TECHNICAL RESOURCES
OPERATIONS

C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212
Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-2
Project: Arthur Kill Correctional Facilty Phase II
Client: OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Page: 1 of 1
Date: 03/26/13
Location: Spill # 01-05760 Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
		0-1 ft. - black asphalt		
2				2
4				4
6			Sample taken at 10-14 ft for PCBs, Semivolatiles, Volatiles, and Metals	6
8		1 - 14 ft. - moist, tan, reddish fine to medium SAND, trace gravel		8
10		petroleum odor at 10ft.	10 - 14 ft. 78.0 ppm on PID meter	10
12				12
14			14 - 15 ft. 20.0 ppm on PID meter	14
16		14 - 17 ft - red to tan wet, SILT	15 - 17 ft. 5.0 ppm on PID meter	16
18		refusal @ 17 ft.		18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

C&S COMPANIES
ENGINEERS
DESIGN BUILD
TECHNICAL RESOURCES
OPERATIONS

C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212
Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-3
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Page: 1 of 1
Date: 03/26/13
Location: Spill # 01-05760 Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6				6
8		1 - 14 ft. - moist, tan, reddish fine to medium SAND, trace gravel		8
10		petroleum odor at 10ft.	10 - 15 ft. 134.0 ppm on PID meter	10
12				12
14			15 - 20 ft. 17.0 ppm on PID meter	14
16		14 - 20 ft - red to tan wet, fine to coarse SAND and GRAVEL		16
18				18
20		End of boring @ 20 ft.		20

Sampling Method: 5 ft. Macro-core

Notes:

C&S COMPANIES
ENGINEERS
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OPERATIONS

C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212
Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-4
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Page: 1 of 1
Date: 03/26/13
Location: Spill # 01-05760 Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6			Sample taken at 15-20 ft for PCBs, Semivolatiles, Volatiles, and Metals	6
8		1 - 15 ft. - moist, tan, reddish fine to medium SAND, trace gravel		8
10		petroleum odor at 10ft.	10 - 15 ft. 227.0 ppm on PID meter	10
12				12
14			15 - 17 ft. 125.0 ppm on PID meter	14
16		15 - 17 ft. - grey SILT, odor	17 - 20 ft. 0.0 ppm on PID meter	16
18		17 - 20 ft - reddish brown CLAY		18
20		End of boring @ 20 ft.		20

Sampling Method: 5 ft. Macro-core

Notes:

C&S COMPANIES
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TECHNICAL RESOURCES
OPERATIONS

C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212
Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-5
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Date: 03/26/13
Location: Spill # 01-05760 Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6			Sample taken at 10-15 ft and 17-20 ft for PCBs, Semivolatiles, Volatiles, and Metals	6
8		1 - 15 ft. - moist, tan, reddish fine to medium SAND, trace gravel		8
10		petroleum odor at 10ft.	10 - 15 ft. 190ppm on PID meter	10
12				12
14			15 - 20 ft. 0.0 ppm on PID meter	14
16		15 - 20 ft. -grey SAND, some silt and clay		16
18				18
20		End of boring @ 20 ft.		20

Sampling Method: 5 ft. Macro-core

Notes:

ENGINEERS
DESIGN BUILD
TECHNICAL RESOURCES
OPERATIONS

C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212
Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-6
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Page: 1 of 1
Date: 03/26/13
Location: Spill # 01-05760 Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6			Sample taken at 10-15 ft for PCBs, Semivolatiles, Volatiles, and Metals	6
8		1 - 15 ft. - moist, tan, reddish fine to medium SAND, trace gravel		8
10		petroleum odor at 10ft.	10 - 15 ft. 98.0 ppm on PID meter	10
12				12
14			15 - 20 ft. 21.0 ppm on PID meter	14
16		15 - 20 ft. - red silty CLAY, some fmc gravel		16
18				18
20		End of boring @ 20 ft.		20

Sampling Method: 5 ft. Macro-core

Notes:

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499 Col. Eileen Collins Blvd
Syracuse, New York 13212
Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-7
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Page: 1 of 1
Date: 03/26/13
Location: Spill # 01-05760 Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6		0 - 10 ft. - reddish brown, SAND, dry to moist		6
8				8
10		petroleum odor at 10ft.	10 - 15 ft. 56.0 ppm on PID meter	10
12				12
14		10- 17ft. - grey SAND, trace gravel and silt	15 - 17 ft. 20.0 ppm on PID meter	14
16				16
18		17 - 20 ft, - hard TILL, clay and silt, trace sand, moist	17 - 20 ft. 15.0 ppm on PID meter	18
20		End of boring @ 20 ft.		20

Sampling Method: 5 ft. Macro-core

Notes:

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Fax: (315) 455-9667

Boring ID: BH-8
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Date: 03/27/13
Location: Heating Oil/UST Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6		0 - 15ft. - reddish brown, SAND, dry to moist	Sample taken at 10-15 ft for PCBs, Semivolatiles, Volatiles, and Metals	6
8				8
10		moist to wet @ 10 ft.	All Readings on PID were 0.0 ppm at each interval	10
12				12
14				14
		End of boring @ 15 ft.		
16				16
18				18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

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Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-9
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Page: 1 of 1
Date: 03/27/13
Location: Heating Oil/UST Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6		0 - 15ft. - reddish brown, SAND, dry to moist		6
8				8
10		moist to wet @ 10 ft.	All Readings on PID were 0.0 ppm at each interval	10
12				12
14				14
		End of boring @ 15 ft.		
16				16
18				18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

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Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-10
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Date: 03/27/13
Location: Heating Oil/UST Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6		0 - 15ft. - reddish brown, SAND, dry to moist	Sample taken at 10-15 ft for PCBs, Semivolatiles, Volatiles, and Metals	6
8				8
10		moist to wet @ 10 ft.	All Readings on PID were 0.0 ppm at each interval	10
12				12
14				14
		End of boring @ 15 ft.		
16				16
18				18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

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Syracuse, New York 13212
Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-11
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Page: 1 of 1
Date: 03/27/13
Location: Heating Oil/UST Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6		0 - 15ft. - reddish brown, SAND, dry to moist	Sample taken at 10-15 ft for PCBs, Semivolatiles, Volatiles, and Metals	6
8				8
10		moist to wet @ 10 ft.	All Readings on PID were 0.0 ppm at each interval	10
12				12
14				14
		End of boring @ 15 ft.		
16				16
18				18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

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Syracuse, New York 13212
Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-12
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Page: 1 of 1
Date: 03/27/13
Location: Heating Oil/UST Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6		0 - 15ft. - reddish brown, SAND, dry to moist	Sample taken at 10-15 ft for PCBs, Semivolatiles, Volatiles, and Metals	6
8				8
10		moist to wet @ 10 ft.	All Readings on PID were 0.0 ppm at each interval	10
12				12
14				14
		End of boring @ 15 ft.		
16				16
18				18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

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Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-13
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Date: 03/27/13
Location: Heating Oil/UST Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6		0 - 15ft. - reddish brown, SAND, dry to moist	Sample taken at 10-15 ft for PCBs, Semivolatiles, Volatiles, and Metals	6
8				8
10		moist to wet @ 10 ft.	All Readings on PID were 0.0 ppm at each interval	10
12				12
14				14
		End of boring @ 15 ft.		
16				16
18				18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

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Phone: (315) 455-2000
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Boring ID: BH-14
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Page: 1 of 1
Date: 03/27/13
Location: Heating Oil/UST Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6		0 - 9ft. - reddish brown, SAND, dry to moist	Sample taken at 10-15 ft for PCBs, Semivolatiles, Volatiles, and Metals 0-9 ft. 0.0 ppm on PID meter	6
8				8
		9 - 15 ft - strong petroleum odor, black SAND, wet		
10			9 - 15 ft.163.0 ppm on PID meter	10
12				12
14				14
		End of boring @ 15 ft. running sands so couldn't drill any further with geoprobe		
16				16
18				18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

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Boring ID: BH-15
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Date: 03/27/13
Location: Service Station Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6		0 - 13ft. - reddish brown, SAND, dry to moist	Sample taken at 10-12 ft for PCBs, Semivolatiles, Volatiles, and Metals	6
8				8
10				10
12			All Readings on PID were 0.0 ppm at each interval	12
14		13 - 15 ft - red CLAY, moist		14
16		End of boring @ 15 ft. running sands so couldn't drill any further with geoprobe		16
18				18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

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Boring ID: BH-16
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Date: 03/27/13
Location: Service Station Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6		0 - 12ft. - reddish brown, SAND, dry to moist	Sample taken at 10-12 ft for PCBs, Semivolatiles, Volatiles, and Metals	6
8				8
10				10
12			All Readings on PID were 0.0 ppm at each interval	12
14		12 - 15 ft - red CLAY, moist		14
16		End of boring @ 15 ft. running sands so couldn't drill any further with geoprobe		16
18				18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

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Boring ID: BH-17
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Page: 1 of 1
Date: 03/27/13
Location: Service Station Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2			All Readings on PID were 0.0 ppm at each interval	2
4				4
6		0 - 11.5ft. - reddish brown, SAND, dry to moist		6
8				8
10				10
12				12
14		11.5 - 15 ft - red CLAY, moist		14
16		End of boring @ 15 ft. running sands so couldn't drill any further with geoprobe		16
18				18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

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Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-18
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Date: 03/27/13
Location: Service Station Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6		0 - 11.5ft. - reddish brown, SAND, dry to moist	Sample taken at 10-13 ft for PCBs, Semivolatiles, Volatiles, and Metals	6
8				8
10				10
12			All Readings on PID were 0.0 ppm at each interval	12
14		11.5 - 15 ft - red CLAY, moist		14
16		End of boring @ 15 ft. running sands so couldn't drill any further with geoprobe		16
18				18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

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Syracuse, New York 13212
Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-19
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Date: 03/27/13
Location: Service Station Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2				2
4				4
6		0 - 14ft. - reddish brown, SAND, dry to moist	Sample taken at 10-13 ft for PCBs, Semivolatiles, Volatiles, and Metals	6
8				8
10				10
12			All Readings on PID were 0.0 ppm at each interval	12
14		14 - 15 ft - red CLAY, moist		14
16		End of boring @ 15 ft. running sands so couldn't drill any further with geoprobe		16
18				18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

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C&S Engineers, Inc.
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Phone: (315) 455-2000
Fax: (315) 455-9667

Boring ID: BH-20
Project: Arthur Kill Correctional Facilty Phase II
Client: NYS OGS
Contractor: EMC, Inc.
Equipment: Track Mounted Geoprobe Rig

Date: 03/27/13
Location: Service Station Area

Depth (ft.)	Sample Number	Physical Description Lithology	Remarks	Depth (ft.)
2			All Readings on PID were 0.0 ppm at each interval	2
4				4
6		0 - 13ft. - reddish brown, SAND, dry to moist		6
8				8
10				10
12				12
14		13 - 15 ft - red CLAY, moist		14
16		End of boring @ 15 ft. running sands so couldn't drill any further with geoprobe		16
18				18
20				20

Sampling Method: 5 ft. Macro-core

Notes:

APPENDIX B

Analytical Laboratory Report

ANALYTICAL REPORT

Lab Number:	L1305165
Client:	C&S Engineers, Inc. 499 Col. Eileen Collins Blvd. Syracuse, NY 13212
ATTN:	Rory Woodmansee
Phone:	(315) 455-2000
Project Name:	ARTHUR KILL PHASE II
Project Number:	190
Report Date:	04/02/13

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Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1305165-01	BH-15 10-12	STATEN ISLAND	03/27/13 11:30
L1305165-02	BH 16 10-12	STATEN ISLAND	03/27/13 12:00
L1305165-03	BH 18 10-13	STATEN ISLAND	03/27/13 12:30
L1305165-04	BH 19 10-13	STATEN ISLAND	03/27/13 13:00
L1305165-05	BH-2 10-14	STATEN ISLAND	03/26/13 12:00
L1305165-06	BH-4 15-20	STATEN ISLAND	03/26/13 13:30
L1305165-07	BH-5 10-15	STATEN ISLAND	03/26/13 16:00
L1305165-08	BH-5 17-20	STATEN ISLAND	03/26/13 16:25
L1305165-09	BH-6 10-15	STATEN ISLAND	03/26/13 14:00
L1305165-10	BH-10 10-15	STATEN ISLAND	03/27/13 08:30
L1305165-11	BH-11 10-15	STATEN ISLAND	03/27/13 09:00
L1305165-12	BH-13 10-15	STATEN ISLAND	03/27/13 09:30
L1305165-13	BH-14 10-15	STATEN ISLAND	03/27/13 10:30
L1305165-14	BH-8 10-15	STATEN ISLAND	03/27/13 11:00

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165
Project Number: 190 **Report Date:** 04/02/13

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

HOLD POLICY
For samples submitted on hold, Alpha's policy is to hold samples free of charge for 30 days from the date the project is completed. After 30 days, we will dispose of all samples submitted including those put on hold unless you have contacted your Client Service Representative and made arrangements for Alpha to continue to hold the samples.

Please contact Client Services at 800-624-9220 with any questions.

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

Case Narrative (continued)

Report Submission

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

Volatile Organics

Any reported concentrations that are below 200 ug/kg may be biased low due to the sample not being collected according to 5035-L/5035A-L low-level specifications.

L1305165-07, -09, and -13 have elevated detection limits due to the dilutions required by the elevated concentrations of non-target compounds in the samples.

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

Authorized Signature: Michelle M. Morris

Title: Technical Director/Representative

Date: 04/02/13

ORGANICS

VOLATILES

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-01	Date Collected:	03/27/13 11:30
Client ID:	BH-15 10-12	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	03/29/13 16:08		
Analyst:	PP		
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.21	1
Chloroform	ND		ug/kg	1.8	0.44	1
Carbon tetrachloride	ND		ug/kg	1.2	0.25	1
1,2-Dichloropropane	ND		ug/kg	4.2	0.27	1
Dibromochloromethane	ND		ug/kg	1.2	0.37	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.36	1
Tetrachloroethene	ND		ug/kg	1.2	0.17	1
Chlorobenzene	ND		ug/kg	1.2	0.42	1
Trichlorofluoromethane	ND		ug/kg	6.0	0.14	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.18	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.27	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
1,1-Dichloropropene	ND		ug/kg	6.0	0.55	1
Bromoform	ND		ug/kg	4.8	0.50	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.20	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.13	1
Ethylbenzene	ND		ug/kg	1.2	0.18	1
Chloromethane	ND		ug/kg	6.0	0.94	1
Bromomethane	ND		ug/kg	2.4	0.40	1
Vinyl chloride	ND		ug/kg	2.4	0.17	1
Chloroethane	ND		ug/kg	2.4	0.38	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.25	1
Trichloroethene	ND		ug/kg	1.2	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	6.0	0.22	1
1,3-Dichlorobenzene	ND		ug/kg	6.0	0.22	1
1,4-Dichlorobenzene	ND		ug/kg	6.0	0.29	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-01 Date Collected: 03/27/13 11:30

Client ID: BH-15 10-12 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.4	0.12	1
p/m-Xylene	ND		ug/kg	2.4	0.39	1
o-Xylene	ND		ug/kg	2.4	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.18	1
Dibromomethane	ND		ug/kg	12	0.20	1
Styrene	ND		ug/kg	2.4	0.37	1
Dichlorodifluoromethane	ND		ug/kg	12	0.26	1
Acetone	ND		ug/kg	12	3.7	1
Carbon disulfide	ND		ug/kg	12	2.4	1
2-Butanone	ND		ug/kg	12	0.43	1
Vinyl acetate	ND		ug/kg	12	0.58	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.29	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.27	1
2-Hexanone	ND		ug/kg	12	0.22	1
Bromochloromethane	ND		ug/kg	6.0	0.24	1
2,2-Dichloropropane	ND		ug/kg	6.0	0.27	1
1,2-Dibromoethane	ND		ug/kg	4.8	0.21	1
1,3-Dichloropropane	ND		ug/kg	6.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.38	1
Bromobenzene	ND		ug/kg	6.0	0.25	1
n-Butylbenzene	ND		ug/kg	1.2	0.24	1
sec-Butylbenzene	ND		ug/kg	1.2	0.25	1
tert-Butylbenzene	ND		ug/kg	6.0	0.67	1
o-Chlorotoluene	ND		ug/kg	6.0	0.19	1
p-Chlorotoluene	ND		ug/kg	6.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.0	0.95	1
Hexachlorobutadiene	ND		ug/kg	6.0	0.51	1
Isopropylbenzene	ND		ug/kg	1.2	0.20	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.23	1
Naphthalene	ND		ug/kg	6.0	0.92	1
Acrylonitrile	ND		ug/kg	12	0.28	1
n-Propylbenzene	ND		ug/kg	1.2	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.0	0.20	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.0	0.95	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.0	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.0	0.69	1
1,4-Dioxane	ND		ug/kg	120	21.	1
1,4-Diethylbenzene	ND		ug/kg	4.8	0.19	1
4-Ethyltoluene	ND		ug/kg	4.8	0.14	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-01	Date Collected:	03/27/13 11:30
Client ID:	BH-15 10-12	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.8	0.16	1
Ethyl ether	ND		ug/kg	6.0	0.32	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.0	0.54	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	97		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-02	Date Collected:	03/27/13 12:00
Client ID:	BH 16 10-12	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	03/29/13 16:36		
Analyst:	PP		
Percent Solids:	78%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	13	2.6	1
1,1-Dichloroethane	ND		ug/kg	1.9	0.23	1
Chloroform	ND		ug/kg	1.9	0.48	1
Carbon tetrachloride	ND		ug/kg	1.3	0.27	1
1,2-Dichloropropane	ND		ug/kg	4.5	0.29	1
Dibromochloromethane	ND		ug/kg	1.3	0.40	1
1,1,2-Trichloroethane	ND		ug/kg	1.9	0.39	1
Tetrachloroethene	ND		ug/kg	1.3	0.18	1
Chlorobenzene	ND		ug/kg	1.3	0.45	1
Trichlorofluoromethane	ND		ug/kg	6.4	0.16	1
1,2-Dichloroethane	ND		ug/kg	1.3	0.19	1
1,1,1-Trichloroethane	ND		ug/kg	1.3	0.14	1
Bromodichloromethane	ND		ug/kg	1.3	0.30	1
trans-1,3-Dichloropropene	ND		ug/kg	1.3	0.16	1
cis-1,3-Dichloropropene	ND		ug/kg	1.3	0.16	1
1,1-Dichloropropene	ND		ug/kg	6.4	0.59	1
Bromoform	ND		ug/kg	5.2	0.54	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.3	0.22	1
Benzene	ND		ug/kg	1.3	0.15	1
Toluene	ND		ug/kg	1.9	0.14	1
Ethylbenzene	ND		ug/kg	1.3	0.19	1
Chloromethane	ND		ug/kg	6.4	1.0	1
Bromomethane	ND		ug/kg	2.6	0.44	1
Vinyl chloride	ND		ug/kg	2.6	0.18	1
Chloroethane	ND		ug/kg	2.6	0.41	1
1,1-Dichloroethene	ND		ug/kg	1.3	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.9	0.27	1
Trichloroethene	ND		ug/kg	1.3	0.20	1
1,2-Dichlorobenzene	ND		ug/kg	6.4	0.24	1
1,3-Dichlorobenzene	ND		ug/kg	6.4	0.24	1
1,4-Dichlorobenzene	ND		ug/kg	6.4	0.31	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-02 Date Collected: 03/27/13 12:00

Client ID: BH 16 10-12 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.6	0.13	1
p/m-Xylene	ND		ug/kg	2.6	0.42	1
o-Xylene	ND		ug/kg	2.6	0.35	1
cis-1,2-Dichloroethene	ND		ug/kg	1.3	0.19	1
Dibromomethane	ND		ug/kg	13	0.21	1
Styrene	ND		ug/kg	2.6	0.40	1
Dichlorodifluoromethane	ND		ug/kg	13	0.28	1
Acetone	ND		ug/kg	13	4.0	1
Carbon disulfide	ND		ug/kg	13	2.6	1
2-Butanone	0.96	J	ug/kg	13	0.46	1
Vinyl acetate	ND		ug/kg	13	0.62	1
4-Methyl-2-pentanone	ND		ug/kg	13	0.32	1
1,2,3-Trichloropropane	ND		ug/kg	13	0.29	1
2-Hexanone	ND		ug/kg	13	0.24	1
Bromochloromethane	ND		ug/kg	6.4	0.25	1
2,2-Dichloropropane	ND		ug/kg	6.4	0.29	1
1,2-Dibromoethane	ND		ug/kg	5.2	0.23	1
1,3-Dichloropropane	ND		ug/kg	6.4	0.22	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.3	0.41	1
Bromobenzene	ND		ug/kg	6.4	0.27	1
n-Butylbenzene	ND		ug/kg	1.3	0.25	1
sec-Butylbenzene	ND		ug/kg	1.3	0.26	1
tert-Butylbenzene	ND		ug/kg	6.4	0.72	1
o-Chlorotoluene	ND		ug/kg	6.4	0.21	1
p-Chlorotoluene	ND		ug/kg	6.4	0.20	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.4	1.0	1
Hexachlorobutadiene	ND		ug/kg	6.4	0.54	1
Isopropylbenzene	ND		ug/kg	1.3	0.22	1
p-Isopropyltoluene	ND		ug/kg	1.3	0.25	1
Naphthalene	ND		ug/kg	6.4	0.99	1
Acrylonitrile	ND		ug/kg	13	0.31	1
n-Propylbenzene	ND		ug/kg	1.3	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.4	0.22	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.4	1.0	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.4	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.4	0.74	1
1,4-Dioxane	ND		ug/kg	130	22.	1
1,4-Diethylbenzene	ND		ug/kg	5.2	0.21	1
4-Ethyltoluene	ND		ug/kg	5.2	0.15	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-02	Date Collected:	03/27/13 12:00
Client ID:	BH 16 10-12	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	5.2	0.17	1
Ethyl ether	ND		ug/kg	6.4	0.34	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.4	0.58	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	98		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-03	Date Collected:	03/27/13 12:30
Client ID:	BH 18 10-13	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	03/29/13 17:04		
Analyst:	PP		
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.22	1
Chloroform	ND		ug/kg	1.8	0.45	1
Carbon tetrachloride	ND		ug/kg	1.2	0.25	1
1,2-Dichloropropane	ND		ug/kg	4.2	0.28	1
Dibromochloromethane	ND		ug/kg	1.2	0.37	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.37	1
Tetrachloroethene	ND		ug/kg	1.2	0.17	1
Chlorobenzene	ND		ug/kg	1.2	0.42	1
Trichlorofluoromethane	ND		ug/kg	6.0	0.15	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.18	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.28	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
1,1-Dichloropropene	ND		ug/kg	6.0	0.55	1
Bromoform	ND		ug/kg	4.8	0.50	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.21	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.14	1
Ethylbenzene	ND		ug/kg	1.2	0.18	1
Chloromethane	ND		ug/kg	6.0	0.95	1
Bromomethane	ND		ug/kg	2.4	0.41	1
Vinyl chloride	ND		ug/kg	2.4	0.17	1
Chloroethane	ND		ug/kg	2.4	0.38	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.26	1
Trichloroethene	ND		ug/kg	1.2	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	6.0	0.22	1
1,3-Dichlorobenzene	ND		ug/kg	6.0	0.22	1
1,4-Dichlorobenzene	ND		ug/kg	6.0	0.29	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-03 Date Collected: 03/27/13 12:30

Client ID: BH 18 10-13 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.4	0.13	1
p/m-Xylene	ND		ug/kg	2.4	0.39	1
o-Xylene	ND		ug/kg	2.4	0.33	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.18	1
Dibromomethane	ND		ug/kg	12	0.20	1
Styrene	ND		ug/kg	2.4	0.37	1
Dichlorodifluoromethane	ND		ug/kg	12	0.26	1
Acetone	ND		ug/kg	12	3.8	1
Carbon disulfide	ND		ug/kg	12	2.4	1
2-Butanone	ND		ug/kg	12	0.43	1
Vinyl acetate	ND		ug/kg	12	0.58	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.30	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.27	1
2-Hexanone	ND		ug/kg	12	0.23	1
Bromochloromethane	ND		ug/kg	6.0	0.24	1
2,2-Dichloropropane	ND		ug/kg	6.0	0.27	1
1,2-Dibromoethane	ND		ug/kg	4.8	0.22	1
1,3-Dichloropropane	ND		ug/kg	6.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.38	1
Bromobenzene	ND		ug/kg	6.0	0.25	1
n-Butylbenzene	ND		ug/kg	1.2	0.24	1
sec-Butylbenzene	ND		ug/kg	1.2	0.25	1
tert-Butylbenzene	ND		ug/kg	6.0	0.68	1
o-Chlorotoluene	ND		ug/kg	6.0	0.19	1
p-Chlorotoluene	ND		ug/kg	6.0	0.19	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.0	0.96	1
Hexachlorobutadiene	ND		ug/kg	6.0	0.51	1
Isopropylbenzene	ND		ug/kg	1.2	0.20	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.23	1
Naphthalene	ND		ug/kg	6.0	0.93	1
Acrylonitrile	ND		ug/kg	12	0.29	1
n-Propylbenzene	ND		ug/kg	1.2	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.0	0.20	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.0	0.96	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.0	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.0	0.69	1
1,4-Dioxane	ND		ug/kg	120	21.	1
1,4-Diethylbenzene	ND		ug/kg	4.8	0.19	1
4-Ethyltoluene	ND		ug/kg	4.8	0.14	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-03	Date Collected:	03/27/13 12:30
Client ID:	BH 18 10-13	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.8	0.16	1
Ethyl ether	ND		ug/kg	6.0	0.32	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.0	0.54	1

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

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-04	Date Collected:	03/27/13 13:00
Client ID:	BH 19 10-13	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	03/29/13 17:32		
Analyst:	PP		
Percent Solids:	86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.21	1
Chloroform	ND		ug/kg	1.8	0.43	1
Carbon tetrachloride	ND		ug/kg	1.2	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.1	0.27	1
Dibromochloromethane	ND		ug/kg	1.2	0.36	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.35	1
Tetrachloroethene	ND		ug/kg	1.2	0.16	1
Chlorobenzene	ND		ug/kg	1.2	0.40	1
Trichlorofluoromethane	ND		ug/kg	5.8	0.14	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.17	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.27	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
1,1-Dichloropropene	ND		ug/kg	5.8	0.53	1
Bromoform	ND		ug/kg	4.7	0.48	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.20	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.13	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	5.8	0.91	1
Bromomethane	ND		ug/kg	2.3	0.39	1
Vinyl chloride	ND		ug/kg	2.3	0.16	1
Chloroethane	ND		ug/kg	2.3	0.37	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.25	1
Trichloroethene	ND		ug/kg	1.2	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	5.8	0.21	1
1,3-Dichlorobenzene	ND		ug/kg	5.8	0.21	1
1,4-Dichlorobenzene	ND		ug/kg	5.8	0.28	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-04 Date Collected: 03/27/13 13:00

Client ID: BH 19 10-13 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.3	0.12	1
p/m-Xylene	ND		ug/kg	2.3	0.38	1
o-Xylene	ND		ug/kg	2.3	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.17	1
Dibromomethane	ND		ug/kg	12	0.19	1
Styrene	ND		ug/kg	2.3	0.36	1
Dichlorodifluoromethane	ND		ug/kg	12	0.25	1
Acetone	ND		ug/kg	12	3.6	1
Carbon disulfide	ND		ug/kg	12	2.3	1
2-Butanone	ND		ug/kg	12	0.41	1
Vinyl acetate	ND		ug/kg	12	0.56	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.28	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.26	1
2-Hexanone	ND		ug/kg	12	0.22	1
Bromochloromethane	ND		ug/kg	5.8	0.23	1
2,2-Dichloropropane	ND		ug/kg	5.8	0.26	1
1,2-Dibromoethane	ND		ug/kg	4.7	0.21	1
1,3-Dichloropropane	ND		ug/kg	5.8	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.37	1
Bromobenzene	ND		ug/kg	5.8	0.24	1
n-Butylbenzene	ND		ug/kg	1.2	0.23	1
sec-Butylbenzene	ND		ug/kg	1.2	0.24	1
tert-Butylbenzene	ND		ug/kg	5.8	0.65	1
o-Chlorotoluene	ND		ug/kg	5.8	0.19	1
p-Chlorotoluene	ND		ug/kg	5.8	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.8	0.92	1
Hexachlorobutadiene	ND		ug/kg	5.8	0.49	1
Isopropylbenzene	ND		ug/kg	1.2	0.20	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.22	1
Naphthalene	ND		ug/kg	5.8	0.90	1
Acrylonitrile	ND		ug/kg	12	0.28	1
n-Propylbenzene	ND		ug/kg	1.2	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.8	0.20	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.8	0.92	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.8	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.8	0.67	1
1,4-Dioxane	ND		ug/kg	120	20.	1
1,4-Diethylbenzene	ND		ug/kg	4.7	0.19	1
4-Ethyltoluene	ND		ug/kg	4.7	0.14	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-04	Date Collected:	03/27/13 13:00
Client ID:	BH 19 10-13	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.7	0.15	1
Ethyl ether	ND		ug/kg	5.8	0.31	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.8	0.52	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	91		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	96		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-05	Date Collected:	03/26/13 12:00
Client ID:	BH-2 10-14	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	03/29/13 18:00		
Analyst:	PP		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.21	1
Chloroform	ND		ug/kg	1.8	0.44	1
Carbon tetrachloride	ND		ug/kg	1.2	0.25	1
1,2-Dichloropropane	ND		ug/kg	4.2	0.27	1
Dibromochloromethane	ND		ug/kg	1.2	0.36	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.36	1
Tetrachloroethene	ND		ug/kg	1.2	0.17	1
Chlorobenzene	ND		ug/kg	1.2	0.41	1
Trichlorofluoromethane	ND		ug/kg	5.9	0.14	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.17	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.27	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
1,1-Dichloropropene	ND		ug/kg	5.9	0.54	1
Bromoform	ND		ug/kg	4.7	0.49	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.20	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.13	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	5.9	0.93	1
Bromomethane	ND		ug/kg	2.4	0.40	1
Vinyl chloride	ND		ug/kg	2.4	0.17	1
Chloroethane	ND		ug/kg	2.4	0.37	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.25	1
Trichloroethene	ND		ug/kg	1.2	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	5.9	0.22	1
1,3-Dichlorobenzene	ND		ug/kg	5.9	0.22	1
1,4-Dichlorobenzene	ND		ug/kg	5.9	0.29	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-05 Date Collected: 03/26/13 12:00

Client ID: BH-2 10-14 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.4	0.12	1
p/m-Xylene	ND		ug/kg	2.4	0.38	1
o-Xylene	ND		ug/kg	2.4	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.18	1
Dibromomethane	ND		ug/kg	12	0.19	1
Styrene	ND		ug/kg	2.4	0.37	1
Dichlorodifluoromethane	ND		ug/kg	12	0.26	1
Acetone	18		ug/kg	12	3.7	1
Carbon disulfide	ND		ug/kg	12	2.4	1
2-Butanone	2.2	J	ug/kg	12	0.42	1
Vinyl acetate	ND		ug/kg	12	0.57	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.29	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.27	1
2-Hexanone	ND		ug/kg	12	0.22	1
Bromochloromethane	ND		ug/kg	5.9	0.23	1
2,2-Dichloropropane	ND		ug/kg	5.9	0.27	1
1,2-Dibromoethane	ND		ug/kg	4.7	0.21	1
1,3-Dichloropropane	ND		ug/kg	5.9	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.38	1
Bromobenzene	ND		ug/kg	5.9	0.25	1
n-Butylbenzene	2.7		ug/kg	1.2	0.23	1
sec-Butylbenzene	ND		ug/kg	1.2	0.24	1
tert-Butylbenzene	ND		ug/kg	5.9	0.66	1
o-Chlorotoluene	ND		ug/kg	5.9	0.19	1
p-Chlorotoluene	ND		ug/kg	5.9	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.9	0.94	1
Hexachlorobutadiene	ND		ug/kg	5.9	0.50	1
Isopropylbenzene	ND		ug/kg	1.2	0.20	1
p-Isopropyltoluene	1.1	J	ug/kg	1.2	0.23	1
Naphthalene	9.9		ug/kg	5.9	0.91	1
Acrylonitrile	ND		ug/kg	12	0.28	1
n-Propylbenzene	ND		ug/kg	1.2	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.9	0.20	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.9	0.94	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.9	0.17	1
1,2,4-Trimethylbenzene	4.2	J	ug/kg	5.9	0.68	1
1,4-Dioxane	ND		ug/kg	120	21.	1
1,4-Diethylbenzene	ND		ug/kg	4.7	0.19	1
4-Ethyltoluene	0.72	J	ug/kg	4.7	0.14	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-05	Date Collected:	03/26/13 12:00
Client ID:	BH-2 10-14	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	12		ug/kg	4.7	0.15	1
Ethyl ether	ND		ug/kg	5.9	0.32	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.9	0.53	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	98		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-06	Date Collected:	03/26/13 13:30
Client ID:	BH-4 15-20	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	03/30/13 13:28		
Analyst:	JC		
Percent Solids:	86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.21	1
Chloroform	ND		ug/kg	1.8	0.43	1
Carbon tetrachloride	ND		ug/kg	1.2	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.1	0.27	1
Dibromochloromethane	ND		ug/kg	1.2	0.36	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.36	1
Tetrachloroethene	ND		ug/kg	1.2	0.16	1
Chlorobenzene	ND		ug/kg	1.2	0.41	1
Trichlorofluoromethane	ND		ug/kg	5.8	0.14	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.17	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.27	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
1,1-Dichloropropene	ND		ug/kg	5.8	0.53	1
Bromoform	ND		ug/kg	4.7	0.48	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.20	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.13	1
Ethylbenzene	ND		ug/kg	1.2	0.17	1
Chloromethane	ND		ug/kg	5.8	0.92	1
Bromomethane	ND		ug/kg	2.3	0.40	1
Vinyl chloride	ND		ug/kg	2.3	0.16	1
Chloroethane	ND		ug/kg	2.3	0.37	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.25	1
Trichloroethene	ND		ug/kg	1.2	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	5.8	0.21	1
1,3-Dichlorobenzene	ND		ug/kg	5.8	0.21	1
1,4-Dichlorobenzene	ND		ug/kg	5.8	0.28	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-06 Date Collected: 03/26/13 13:30

Client ID: BH-4 15-20 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.3	0.12	1
p/m-Xylene	ND		ug/kg	2.3	0.38	1
o-Xylene	ND		ug/kg	2.3	0.32	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.17	1
Dibromomethane	ND		ug/kg	12	0.19	1
Styrene	ND		ug/kg	2.3	0.36	1
Dichlorodifluoromethane	ND		ug/kg	12	0.26	1
Acetone	ND		ug/kg	12	3.6	1
Carbon disulfide	ND		ug/kg	12	2.3	1
2-Butanone	ND		ug/kg	12	0.42	1
Vinyl acetate	ND		ug/kg	12	0.56	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.28	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.26	1
2-Hexanone	ND		ug/kg	12	0.22	1
Bromochloromethane	ND		ug/kg	5.8	0.23	1
2,2-Dichloropropane	ND		ug/kg	5.8	0.26	1
1,2-Dibromoethane	ND		ug/kg	4.7	0.21	1
1,3-Dichloropropane	ND		ug/kg	5.8	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.37	1
Bromobenzene	ND		ug/kg	5.8	0.24	1
n-Butylbenzene	ND		ug/kg	1.2	0.23	1
sec-Butylbenzene	ND		ug/kg	1.2	0.24	1
tert-Butylbenzene	ND		ug/kg	5.8	0.66	1
o-Chlorotoluene	ND		ug/kg	5.8	0.19	1
p-Chlorotoluene	ND		ug/kg	5.8	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.8	0.92	1
Hexachlorobutadiene	ND		ug/kg	5.8	0.49	1
Isopropylbenzene	ND		ug/kg	1.2	0.20	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.22	1
Naphthalene	ND		ug/kg	5.8	0.90	1
Acrylonitrile	ND		ug/kg	12	0.28	1
n-Propylbenzene	ND		ug/kg	1.2	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.8	0.20	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.8	0.92	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.8	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.8	0.67	1
1,4-Dioxane	ND		ug/kg	120	20.	1
1,4-Diethylbenzene	ND		ug/kg	4.7	0.19	1
4-Ethyltoluene	ND		ug/kg	4.7	0.14	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-06	Date Collected:	03/26/13 13:30
Client ID:	BH-4 15-20	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.7	0.15	1
Ethyl ether	ND		ug/kg	5.8	0.31	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.8	0.52	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	97		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-07	D	Date Collected:	03/26/13 16:00
Client ID:	BH-5 10-15		Date Received:	03/27/13
Sample Location:	STATEN ISLAND		Field Prep:	Not Specified
Matrix:	Soil			
Analytical Method:	1,8260C			
Analytical Date:	03/30/13 13:01			
Analyst:	JC			
Percent Solids:	83%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	600	120	50
1,1-Dichloroethane	ND		ug/kg	90	11.	50
Chloroform	ND		ug/kg	90	22.	50
Carbon tetrachloride	ND		ug/kg	60	13.	50
1,2-Dichloropropane	ND		ug/kg	210	14.	50
Dibromochloromethane	ND		ug/kg	60	18.	50
1,1,2-Trichloroethane	ND		ug/kg	90	18.	50
Tetrachloroethene	ND		ug/kg	60	8.4	50
Chlorobenzene	ND		ug/kg	60	21.	50
Trichlorofluoromethane	ND		ug/kg	300	7.3	50
1,2-Dichloroethane	ND		ug/kg	60	8.8	50
1,1,1-Trichloroethane	ND		ug/kg	60	6.7	50
Bromodichloromethane	ND		ug/kg	60	14.	50
trans-1,3-Dichloropropene	ND		ug/kg	60	7.3	50
cis-1,3-Dichloropropene	ND		ug/kg	60	7.6	50
1,1-Dichloropropene	ND		ug/kg	300	27.	50
Bromoform	ND		ug/kg	240	25.	50
1,1,2,2-Tetrachloroethane	ND		ug/kg	60	10.	50
Benzene	ND		ug/kg	60	7.1	50
Toluene	ND		ug/kg	90	6.7	50
Ethylbenzene	ND		ug/kg	60	8.9	50
Chloromethane	ND		ug/kg	300	47.	50
Bromomethane	ND		ug/kg	120	20.	50
Vinyl chloride	ND		ug/kg	120	8.5	50
Chloroethane	ND		ug/kg	120	19.	50
1,1-Dichloroethene	ND		ug/kg	60	12.	50
trans-1,2-Dichloroethene	ND		ug/kg	90	13.	50
Trichloroethene	ND		ug/kg	60	9.2	50
1,2-Dichlorobenzene	ND		ug/kg	300	11.	50
1,3-Dichlorobenzene	ND		ug/kg	300	11.	50
1,4-Dichlorobenzene	ND		ug/kg	300	14.	50

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-07 D Date Collected: 03/26/13 16:00
Client ID: BH-5 10-15 Date Received: 03/27/13
Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	120	6.3	50
p/m-Xylene	ND		ug/kg	120	19.	50
o-Xylene	ND		ug/kg	120	16.	50
cis-1,2-Dichloroethene	ND		ug/kg	60	9.0	50
Dibromomethane	ND		ug/kg	600	9.8	50
Styrene	ND		ug/kg	120	19.	50
Dichlorodifluoromethane	ND		ug/kg	600	13.	50
Acetone	ND		ug/kg	600	190	50
Carbon disulfide	ND		ug/kg	600	120	50
2-Butanone	ND		ug/kg	600	21.	50
Vinyl acetate	ND		ug/kg	600	29.	50
4-Methyl-2-pentanone	ND		ug/kg	600	15.	50
1,2,3-Trichloropropane	ND		ug/kg	600	14.	50
2-Hexanone	ND		ug/kg	600	11.	50
Bromochloromethane	ND		ug/kg	300	12.	50
2,2-Dichloropropane	ND		ug/kg	300	14.	50
1,2-Dibromoethane	ND		ug/kg	240	11.	50
1,3-Dichloropropane	ND		ug/kg	300	10.	50
1,1,1,2-Tetrachloroethane	ND		ug/kg	60	19.	50
Bromobenzene	ND		ug/kg	300	12.	50
n-Butylbenzene	250		ug/kg	60	12.	50
sec-Butylbenzene	110		ug/kg	60	12.	50
tert-Butylbenzene	ND		ug/kg	300	34.	50
o-Chlorotoluene	ND		ug/kg	300	9.6	50
p-Chlorotoluene	ND		ug/kg	300	9.2	50
1,2-Dibromo-3-chloropropane	ND		ug/kg	300	48.	50
Hexachlorobutadiene	ND		ug/kg	300	25.	50
Isopropylbenzene	ND		ug/kg	60	10.	50
p-Isopropyltoluene	120		ug/kg	60	12.	50
Naphthalene	360		ug/kg	300	46.	50
Acrylonitrile	ND		ug/kg	600	14.	50
n-Propylbenzene	ND		ug/kg	60	7.6	50
1,2,3-Trichlorobenzene	ND		ug/kg	300	10.	50
1,2,4-Trichlorobenzene	ND		ug/kg	300	48.	50
1,3,5-Trimethylbenzene	320		ug/kg	300	8.6	50
1,2,4-Trimethylbenzene	1100		ug/kg	300	34.	50
1,4-Dioxane	ND		ug/kg	6000	1000	50
1,4-Diethylbenzene	1300		ug/kg	240	9.6	50
4-Ethyltoluene	600		ug/kg	240	7.0	50

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-07	D	Date Collected:	03/26/13 16:00
Client ID:	BH-5 10-15		Date Received:	03/27/13
Sample Location:	STATEN ISLAND		Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	620		ug/kg	240	7.8	50
Ethyl ether	ND		ug/kg	300	16.	50
trans-1,4-Dichloro-2-butene	ND		ug/kg	300	27.	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	96		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-08	Date Collected:	03/26/13 16:25
Client ID:	BH-5 17-20	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	03/29/13 18:56		
Analyst:	PP		
Percent Solids:	87%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	11	2.3	1
1,1-Dichloroethane	ND		ug/kg	1.7	0.20	1
Chloroform	ND		ug/kg	1.7	0.42	1
Carbon tetrachloride	ND		ug/kg	1.1	0.24	1
1,2-Dichloropropane	ND		ug/kg	4.0	0.26	1
Dibromochloromethane	ND		ug/kg	1.1	0.35	1
1,1,2-Trichloroethane	ND		ug/kg	1.7	0.35	1
Tetrachloroethene	ND		ug/kg	1.1	0.16	1
Chlorobenzene	ND		ug/kg	1.1	0.40	1
Trichlorofluoromethane	ND		ug/kg	5.7	0.14	1
1,2-Dichloroethane	ND		ug/kg	1.1	0.17	1
1,1,1-Trichloroethane	ND		ug/kg	1.1	0.13	1
Bromodichloromethane	ND		ug/kg	1.1	0.26	1
trans-1,3-Dichloropropene	ND		ug/kg	1.1	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.1	0.14	1
1,1-Dichloropropene	ND		ug/kg	5.7	0.52	1
Bromoform	ND		ug/kg	4.6	0.47	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.1	0.20	1
Benzene	ND		ug/kg	1.1	0.14	1
Toluene	ND		ug/kg	1.7	0.13	1
Ethylbenzene	ND		ug/kg	1.1	0.17	1
Chloromethane	ND		ug/kg	5.7	0.90	1
Bromomethane	ND		ug/kg	2.3	0.39	1
Vinyl chloride	ND		ug/kg	2.3	0.16	1
Chloroethane	ND		ug/kg	2.3	0.36	1
1,1-Dichloroethene	ND		ug/kg	1.1	0.24	1
trans-1,2-Dichloroethene	ND		ug/kg	1.7	0.24	1
Trichloroethene	ND		ug/kg	1.1	0.17	1
1,2-Dichlorobenzene	ND		ug/kg	5.7	0.21	1
1,3-Dichlorobenzene	ND		ug/kg	5.7	0.21	1
1,4-Dichlorobenzene	ND		ug/kg	5.7	0.28	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-08 Date Collected: 03/26/13 16:25

Client ID: BH-5 17-20 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.3	0.12	1
p/m-Xylene	ND		ug/kg	2.3	0.37	1
o-Xylene	ND		ug/kg	2.3	0.31	1
cis-1,2-Dichloroethene	ND		ug/kg	1.1	0.17	1
Dibromomethane	ND		ug/kg	11	0.19	1
Styrene	ND		ug/kg	2.3	0.35	1
Dichlorodifluoromethane	ND		ug/kg	11	0.25	1
Acetone	ND		ug/kg	11	3.6	1
Carbon disulfide	ND		ug/kg	11	2.3	1
2-Butanone	ND		ug/kg	11	0.41	1
Vinyl acetate	ND		ug/kg	11	0.55	1
4-Methyl-2-pentanone	ND		ug/kg	11	0.28	1
1,2,3-Trichloropropane	ND		ug/kg	11	0.26	1
2-Hexanone	ND		ug/kg	11	0.22	1
Bromochloromethane	ND		ug/kg	5.7	0.22	1
2,2-Dichloropropane	ND		ug/kg	5.7	0.26	1
1,2-Dibromoethane	ND		ug/kg	4.6	0.20	1
1,3-Dichloropropane	ND		ug/kg	5.7	0.20	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.1	0.36	1
Bromobenzene	ND		ug/kg	5.7	0.24	1
n-Butylbenzene	ND		ug/kg	1.1	0.23	1
sec-Butylbenzene	ND		ug/kg	1.1	0.24	1
tert-Butylbenzene	ND		ug/kg	5.7	0.64	1
o-Chlorotoluene	ND		ug/kg	5.7	0.18	1
p-Chlorotoluene	ND		ug/kg	5.7	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.7	0.90	1
Hexachlorobutadiene	ND		ug/kg	5.7	0.48	1
Isopropylbenzene	ND		ug/kg	1.1	0.19	1
p-Isopropyltoluene	ND		ug/kg	1.1	0.22	1
Naphthalene	ND		ug/kg	5.7	0.88	1
Acrylonitrile	ND		ug/kg	11	0.27	1
n-Propylbenzene	ND		ug/kg	1.1	0.14	1
1,2,3-Trichlorobenzene	ND		ug/kg	5.7	0.19	1
1,2,4-Trichlorobenzene	ND		ug/kg	5.7	0.90	1
1,3,5-Trimethylbenzene	ND		ug/kg	5.7	0.16	1
1,2,4-Trimethylbenzene	ND		ug/kg	5.7	0.66	1
1,4-Dioxane	ND		ug/kg	110	20.	1
1,4-Diethylbenzene	ND		ug/kg	4.6	0.18	1
4-Ethyltoluene	ND		ug/kg	4.6	0.13	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-08	Date Collected:	03/26/13 16:25
Client ID:	BH-5 17-20	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.6	0.15	1
Ethyl ether	ND		ug/kg	5.7	0.30	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.7	0.51	1

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

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-09	D	Date Collected:	03/26/13 14:00
Client ID:	BH-6 10-15		Date Received:	03/27/13
Sample Location:	STATEN ISLAND		Field Prep:	Not Specified
Matrix:	Soil			
Analytical Method:	1,8260C			
Analytical Date:	03/29/13 19:51			
Analyst:	PP			
Percent Solids:	84%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	1200	240	100
1,1-Dichloroethane	ND		ug/kg	180	21.	100
Chloroform	ND		ug/kg	180	44.	100
Carbon tetrachloride	ND		ug/kg	120	25.	100
1,2-Dichloropropane	ND		ug/kg	420	27.	100
Dibromochloromethane	ND		ug/kg	120	37.	100
1,1,2-Trichloroethane	ND		ug/kg	180	36.	100
Tetrachloroethene	ND		ug/kg	120	17.	100
Chlorobenzene	ND		ug/kg	120	41.	100
Trichlorofluoromethane	ND		ug/kg	600	14.	100
1,2-Dichloroethane	ND		ug/kg	120	17.	100
1,1,1-Trichloroethane	ND		ug/kg	120	13.	100
Bromodichloromethane	ND		ug/kg	120	27.	100
trans-1,3-Dichloropropene	ND		ug/kg	120	14.	100
cis-1,3-Dichloropropene	ND		ug/kg	120	15.	100
1,1-Dichloropropene	ND		ug/kg	600	54.	100
Bromoform	ND		ug/kg	480	49.	100
1,1,2,2-Tetrachloroethane	ND		ug/kg	120	20.	100
Benzene	ND		ug/kg	120	14.	100
Toluene	ND		ug/kg	180	13.	100
Ethylbenzene	ND		ug/kg	120	18.	100
Chloromethane	ND		ug/kg	600	93.	100
Bromomethane	ND		ug/kg	240	40.	100
Vinyl chloride	ND		ug/kg	240	17.	100
Chloroethane	ND		ug/kg	240	38.	100
1,1-Dichloroethene	ND		ug/kg	120	24.	100
trans-1,2-Dichloroethene	ND		ug/kg	180	25.	100
Trichloroethene	ND		ug/kg	120	18.	100
1,2-Dichlorobenzene	ND		ug/kg	600	22.	100
1,3-Dichlorobenzene	ND		ug/kg	600	22.	100
1,4-Dichlorobenzene	ND		ug/kg	600	29.	100

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-09 D Date Collected: 03/26/13 14:00
Client ID: BH-6 10-15 Date Received: 03/27/13
Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	240	12.	100
p/m-Xylene	100	J	ug/kg	240	38.	100
o-Xylene	ND		ug/kg	240	32.	100
cis-1,2-Dichloroethene	ND		ug/kg	120	18.	100
Dibromomethane	ND		ug/kg	1200	19.	100
Styrene	ND		ug/kg	240	37.	100
Dichlorodifluoromethane	ND		ug/kg	1200	26.	100
Acetone	ND		ug/kg	1200	370	100
Carbon disulfide	ND		ug/kg	1200	240	100
2-Butanone	ND		ug/kg	1200	42.	100
Vinyl acetate	ND		ug/kg	1200	57.	100
4-Methyl-2-pentanone	ND		ug/kg	1200	29.	100
1,2,3-Trichloropropane	ND		ug/kg	1200	27.	100
2-Hexanone	ND		ug/kg	1200	22.	100
Bromochloromethane	ND		ug/kg	600	23.	100
2,2-Dichloropropane	ND		ug/kg	600	27.	100
1,2-Dibromoethane	ND		ug/kg	480	21.	100
1,3-Dichloropropane	ND		ug/kg	600	20.	100
1,1,1,2-Tetrachloroethane	ND		ug/kg	120	38.	100
Bromobenzene	ND		ug/kg	600	25.	100
n-Butylbenzene	160		ug/kg	120	24.	100
sec-Butylbenzene	95	J	ug/kg	120	24.	100
tert-Butylbenzene	ND		ug/kg	600	67.	100
o-Chlorotoluene	ND		ug/kg	600	19.	100
p-Chlorotoluene	ND		ug/kg	600	18.	100
1,2-Dibromo-3-chloropropane	ND		ug/kg	600	94.	100
Hexachlorobutadiene	ND		ug/kg	600	50.	100
Isopropylbenzene	ND		ug/kg	120	20.	100
p-Isopropyltoluene	150		ug/kg	120	23.	100
Naphthalene	1100		ug/kg	600	92.	100
Acrylonitrile	ND		ug/kg	1200	28.	100
n-Propylbenzene	ND		ug/kg	120	15.	100
1,2,3-Trichlorobenzene	ND		ug/kg	600	20.	100
1,2,4-Trichlorobenzene	ND		ug/kg	600	94.	100
1,3,5-Trimethylbenzene	610		ug/kg	600	17.	100
1,2,4-Trimethylbenzene	1600		ug/kg	600	68.	100
1,4-Dioxane	ND		ug/kg	12000	2100	100
1,4-Diethylbenzene	2600		ug/kg	480	19.	100
4-Ethyltoluene	880		ug/kg	480	14.	100

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-09 D Date Collected: 03/26/13 14:00

Client ID: BH-6 10-15 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	1000		ug/kg	480	16.	100
Ethyl ether	ND		ug/kg	600	32.	100
trans-1,4-Dichloro-2-butene	ND		ug/kg	600	53.	100

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	107		70-130
Dibromofluoromethane	95		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-10	Date Collected:	03/27/13 08:30
Client ID:	BH-10 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	03/29/13 19:24		
Analyst:	PP		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.22	1
Chloroform	ND		ug/kg	1.8	0.46	1
Carbon tetrachloride	ND		ug/kg	1.2	0.26	1
1,2-Dichloropropane	ND		ug/kg	4.3	0.28	1
Dibromochloromethane	ND		ug/kg	1.2	0.38	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.38	1
Tetrachloroethene	ND		ug/kg	1.2	0.17	1
Chlorobenzene	ND		ug/kg	1.2	0.43	1
Trichlorofluoromethane	ND		ug/kg	6.2	0.15	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.18	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.14	1
Bromodichloromethane	ND		ug/kg	1.2	0.28	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.16	1
1,1-Dichloropropene	ND		ug/kg	6.2	0.56	1
Bromoform	ND		ug/kg	4.9	0.51	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.21	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.14	1
Ethylbenzene	ND		ug/kg	1.2	0.18	1
Chloromethane	ND		ug/kg	6.2	0.97	1
Bromomethane	ND		ug/kg	2.5	0.42	1
Vinyl chloride	ND		ug/kg	2.5	0.17	1
Chloroethane	ND		ug/kg	2.5	0.39	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.26	1
Trichloroethene	ND		ug/kg	1.2	0.19	1
1,2-Dichlorobenzene	ND		ug/kg	6.2	0.23	1
1,3-Dichlorobenzene	ND		ug/kg	6.2	0.23	1
1,4-Dichlorobenzene	ND		ug/kg	6.2	0.30	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-10 Date Collected: 03/27/13 08:30

Client ID: BH-10 10-15 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.5	0.13	1
p/m-Xylene	ND		ug/kg	2.5	0.40	1
o-Xylene	ND		ug/kg	2.5	0.33	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.18	1
Dibromomethane	ND		ug/kg	12	0.20	1
Styrene	ND		ug/kg	2.5	0.38	1
Dichlorodifluoromethane	ND		ug/kg	12	0.27	1
Acetone	ND		ug/kg	12	3.8	1
Carbon disulfide	ND		ug/kg	12	2.5	1
2-Butanone	ND		ug/kg	12	0.44	1
Vinyl acetate	ND		ug/kg	12	0.59	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.30	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.28	1
2-Hexanone	ND		ug/kg	12	0.23	1
Bromochloromethane	ND		ug/kg	6.2	0.24	1
2,2-Dichloropropane	ND		ug/kg	6.2	0.28	1
1,2-Dibromoethane	ND		ug/kg	4.9	0.22	1
1,3-Dichloropropane	ND		ug/kg	6.2	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.39	1
Bromobenzene	ND		ug/kg	6.2	0.26	1
n-Butylbenzene	ND		ug/kg	1.2	0.24	1
sec-Butylbenzene	ND		ug/kg	1.2	0.25	1
tert-Butylbenzene	ND		ug/kg	6.2	0.69	1
o-Chlorotoluene	ND		ug/kg	6.2	0.20	1
p-Chlorotoluene	ND		ug/kg	6.2	0.19	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.2	0.98	1
Hexachlorobutadiene	ND		ug/kg	6.2	0.52	1
Isopropylbenzene	ND		ug/kg	1.2	0.21	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.24	1
Naphthalene	ND		ug/kg	6.2	0.95	1
Acrylonitrile	ND		ug/kg	12	0.29	1
n-Propylbenzene	ND		ug/kg	1.2	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.2	0.21	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.2	0.98	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.2	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.2	0.71	1
1,4-Dioxane	ND		ug/kg	120	22.	1
1,4-Diethylbenzene	ND		ug/kg	4.9	0.20	1
4-Ethyltoluene	ND		ug/kg	4.9	0.14	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-10	Date Collected:	03/27/13 08:30
Client ID:	BH-10 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.9	0.16	1
Ethyl ether	ND		ug/kg	6.2	0.33	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.2	0.55	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	102		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	97		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-11	Date Collected:	03/27/13 09:00
Client ID:	BH-11 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	03/29/13 19:52		
Analyst:	PP		
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	2.4	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.21	1
Chloroform	ND		ug/kg	1.8	0.45	1
Carbon tetrachloride	ND		ug/kg	1.2	0.25	1
1,2-Dichloropropane	ND		ug/kg	4.2	0.28	1
Dibromochloromethane	ND		ug/kg	1.2	0.37	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.37	1
Tetrachloroethene	ND		ug/kg	1.2	0.17	1
Chlorobenzene	ND		ug/kg	1.2	0.42	1
Trichlorofluoromethane	ND		ug/kg	6.0	0.15	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.18	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.13	1
Bromodichloromethane	ND		ug/kg	1.2	0.28	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.14	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
1,1-Dichloropropene	ND		ug/kg	6.0	0.55	1
Bromoform	ND		ug/kg	4.8	0.50	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.20	1
Benzene	ND		ug/kg	1.2	0.14	1
Toluene	ND		ug/kg	1.8	0.13	1
Ethylbenzene	ND		ug/kg	1.2	0.18	1
Chloromethane	ND		ug/kg	6.0	0.94	1
Bromomethane	ND		ug/kg	2.4	0.41	1
Vinyl chloride	ND		ug/kg	2.4	0.17	1
Chloroethane	ND		ug/kg	2.4	0.38	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.25	1
Trichloroethene	ND		ug/kg	1.2	0.18	1
1,2-Dichlorobenzene	ND		ug/kg	6.0	0.22	1
1,3-Dichlorobenzene	ND		ug/kg	6.0	0.22	1
1,4-Dichlorobenzene	ND		ug/kg	6.0	0.29	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-11 Date Collected: 03/27/13 09:00

Client ID: BH-11 10-15 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.4	0.12	1
p/m-Xylene	ND		ug/kg	2.4	0.39	1
o-Xylene	ND		ug/kg	2.4	0.33	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.18	1
Dibromomethane	ND		ug/kg	12	0.20	1
Styrene	ND		ug/kg	2.4	0.37	1
Dichlorodifluoromethane	ND		ug/kg	12	0.26	1
Acetone	ND		ug/kg	12	3.7	1
Carbon disulfide	ND		ug/kg	12	2.4	1
2-Butanone	ND		ug/kg	12	0.43	1
Vinyl acetate	ND		ug/kg	12	0.58	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.29	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.27	1
2-Hexanone	ND		ug/kg	12	0.23	1
Bromochloromethane	ND		ug/kg	6.0	0.24	1
2,2-Dichloropropane	ND		ug/kg	6.0	0.27	1
1,2-Dibromoethane	ND		ug/kg	4.8	0.21	1
1,3-Dichloropropane	ND		ug/kg	6.0	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.38	1
Bromobenzene	ND		ug/kg	6.0	0.25	1
n-Butylbenzene	ND		ug/kg	1.2	0.24	1
sec-Butylbenzene	ND		ug/kg	1.2	0.25	1
tert-Butylbenzene	ND		ug/kg	6.0	0.68	1
o-Chlorotoluene	ND		ug/kg	6.0	0.19	1
p-Chlorotoluene	ND		ug/kg	6.0	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.0	0.95	1
Hexachlorobutadiene	ND		ug/kg	6.0	0.51	1
Isopropylbenzene	ND		ug/kg	1.2	0.20	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.23	1
Naphthalene	ND		ug/kg	6.0	0.93	1
Acrylonitrile	ND		ug/kg	12	0.29	1
n-Propylbenzene	ND		ug/kg	1.2	0.15	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.0	0.20	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.0	0.95	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.0	0.17	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.0	0.69	1
1,4-Dioxane	ND		ug/kg	120	21.	1
1,4-Diethylbenzene	ND		ug/kg	4.8	0.19	1
4-Ethyltoluene	ND		ug/kg	4.8	0.14	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-11	Date Collected:	03/27/13 09:00
Client ID:	BH-11 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.8	0.16	1
Ethyl ether	ND		ug/kg	6.0	0.32	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.0	0.54	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	92		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	97		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-12	Date Collected:	03/27/13 09:30
Client ID:	BH-13 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	03/29/13 20:20		
Analyst:	PP		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.22	1
Chloroform	ND		ug/kg	1.8	0.46	1
Carbon tetrachloride	ND		ug/kg	1.2	0.26	1
1,2-Dichloropropane	ND		ug/kg	4.3	0.28	1
Dibromochloromethane	ND		ug/kg	1.2	0.38	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.38	1
Tetrachloroethene	ND		ug/kg	1.2	0.17	1
Chlorobenzene	ND		ug/kg	1.2	0.43	1
Trichlorofluoromethane	ND		ug/kg	6.2	0.15	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.18	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.14	1
Bromodichloromethane	ND		ug/kg	1.2	0.28	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.16	1
1,1-Dichloropropene	ND		ug/kg	6.2	0.56	1
Bromoform	ND		ug/kg	5.0	0.51	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.21	1
Benzene	ND		ug/kg	1.2	0.15	1
Toluene	ND		ug/kg	1.8	0.14	1
Ethylbenzene	ND		ug/kg	1.2	0.18	1
Chloromethane	ND		ug/kg	6.2	0.97	1
Bromomethane	ND		ug/kg	2.5	0.42	1
Vinyl chloride	ND		ug/kg	2.5	0.17	1
Chloroethane	ND		ug/kg	2.5	0.39	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.25	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.26	1
Trichloroethene	ND		ug/kg	1.2	0.19	1
1,2-Dichlorobenzene	ND		ug/kg	6.2	0.23	1
1,3-Dichlorobenzene	ND		ug/kg	6.2	0.23	1
1,4-Dichlorobenzene	ND		ug/kg	6.2	0.30	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-12 Date Collected: 03/27/13 09:30

Client ID: BH-13 10-15 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.5	0.13	1
p/m-Xylene	ND		ug/kg	2.5	0.40	1
o-Xylene	ND		ug/kg	2.5	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.18	1
Dibromomethane	ND		ug/kg	12	0.20	1
Styrene	ND		ug/kg	2.5	0.38	1
Dichlorodifluoromethane	ND		ug/kg	12	0.27	1
Acetone	ND		ug/kg	12	3.8	1
Carbon disulfide	ND		ug/kg	12	2.5	1
2-Butanone	ND		ug/kg	12	0.44	1
Vinyl acetate	ND		ug/kg	12	0.59	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.30	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.28	1
2-Hexanone	ND		ug/kg	12	0.23	1
Bromochloromethane	ND		ug/kg	6.2	0.24	1
2,2-Dichloropropane	ND		ug/kg	6.2	0.28	1
1,2-Dibromoethane	ND		ug/kg	5.0	0.22	1
1,3-Dichloropropane	ND		ug/kg	6.2	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.39	1
Bromobenzene	ND		ug/kg	6.2	0.26	1
n-Butylbenzene	ND		ug/kg	1.2	0.24	1
sec-Butylbenzene	ND		ug/kg	1.2	0.25	1
tert-Butylbenzene	ND		ug/kg	6.2	0.69	1
o-Chlorotoluene	ND		ug/kg	6.2	0.20	1
p-Chlorotoluene	ND		ug/kg	6.2	0.19	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.2	0.98	1
Hexachlorobutadiene	ND		ug/kg	6.2	0.52	1
Isopropylbenzene	ND		ug/kg	1.2	0.21	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.24	1
Naphthalene	ND		ug/kg	6.2	0.95	1
Acrylonitrile	ND		ug/kg	12	0.29	1
n-Propylbenzene	ND		ug/kg	1.2	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.2	0.21	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.2	0.98	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.2	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.2	0.71	1
1,4-Dioxane	ND		ug/kg	120	22.	1
1,4-Diethylbenzene	ND		ug/kg	5.0	0.20	1
4-Ethyltoluene	ND		ug/kg	5.0	0.14	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-12	Date Collected:	03/27/13 09:30
Client ID:	BH-13 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	5.0	0.16	1
Ethyl ether	ND		ug/kg	6.2	0.33	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.2	0.55	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	93		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	97		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-13	D	Date Collected:	03/27/13 10:30
Client ID:	BH-14 10-15		Date Received:	03/27/13
Sample Location:	STATEN ISLAND		Field Prep:	Not Specified
Matrix:	Soil			
Analytical Method:	1,8260C			
Analytical Date:	03/29/13 20:19			
Analyst:	PP			
Percent Solids:	78%			

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	3200	640	250
1,1-Dichloroethane	ND		ug/kg	480	57.	250
Chloroform	ND		ug/kg	480	120	250
Carbon tetrachloride	ND		ug/kg	320	68.	250
1,2-Dichloropropane	ND		ug/kg	1100	74.	250
Dibromochloromethane	ND		ug/kg	320	99.	250
1,1,2-Trichloroethane	ND		ug/kg	480	98.	250
Tetrachloroethene	ND		ug/kg	320	45.	250
Chlorobenzene	ND		ug/kg	320	110	250
Trichlorofluoromethane	ND		ug/kg	1600	39.	250
1,2-Dichloroethane	ND		ug/kg	320	47.	250
1,1,1-Trichloroethane	ND		ug/kg	320	36.	250
Bromodichloromethane	ND		ug/kg	320	74.	250
trans-1,3-Dichloropropene	ND		ug/kg	320	39.	250
cis-1,3-Dichloropropene	ND		ug/kg	320	41.	250
1,1-Dichloropropene	ND		ug/kg	1600	150	250
Bromoform	ND		ug/kg	1300	130	250
1,1,2,2-Tetrachloroethane	ND		ug/kg	320	55.	250
Benzene	ND		ug/kg	320	38.	250
Toluene	ND		ug/kg	480	36.	250
Ethylbenzene	ND		ug/kg	320	47.	250
Chloromethane	ND		ug/kg	1600	250	250
Bromomethane	ND		ug/kg	640	110	250
Vinyl chloride	ND		ug/kg	640	45.	250
Chloroethane	ND		ug/kg	640	100	250
1,1-Dichloroethene	ND		ug/kg	320	66.	250
trans-1,2-Dichloroethene	ND		ug/kg	480	68.	250
Trichloroethene	ND		ug/kg	320	49.	250
1,2-Dichlorobenzene	ND		ug/kg	1600	59.	250
1,3-Dichlorobenzene	ND		ug/kg	1600	59.	250
1,4-Dichlorobenzene	ND		ug/kg	1600	78.	250

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-13 D Date Collected: 03/27/13 10:30
Client ID: BH-14 10-15 Date Received: 03/27/13
Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	640	34.	250
p/m-Xylene	ND		ug/kg	640	100	250
o-Xylene	ND		ug/kg	640	87.	250
cis-1,2-Dichloroethene	ND		ug/kg	320	48.	250
Dibromomethane	ND		ug/kg	3200	53.	250
Styrene	ND		ug/kg	640	100	250
Dichlorodifluoromethane	ND		ug/kg	3200	70.	250
Acetone	ND		ug/kg	3200	1000	250
Carbon disulfide	ND		ug/kg	3200	640	250
2-Butanone	ND		ug/kg	3200	110	250
Vinyl acetate	ND		ug/kg	3200	150	250
4-Methyl-2-pentanone	ND		ug/kg	3200	79.	250
1,2,3-Trichloropropane	ND		ug/kg	3200	72.	250
2-Hexanone	ND		ug/kg	3200	61.	250
Bromochloromethane	ND		ug/kg	1600	63.	250
2,2-Dichloropropane	ND		ug/kg	1600	73.	250
1,2-Dibromoethane	ND		ug/kg	1300	57.	250
1,3-Dichloropropane	ND		ug/kg	1600	56.	250
1,1,1,2-Tetrachloroethane	ND		ug/kg	320	100	250
Bromobenzene	ND		ug/kg	1600	67.	250
n-Butylbenzene	2200		ug/kg	320	64.	250
sec-Butylbenzene	1100		ug/kg	320	66.	250
tert-Butylbenzene	ND		ug/kg	1600	180	250
o-Chlorotoluene	ND		ug/kg	1600	51.	250
p-Chlorotoluene	ND		ug/kg	1600	50.	250
1,2-Dibromo-3-chloropropane	ND		ug/kg	1600	250	250
Hexachlorobutadiene	ND		ug/kg	1600	140	250
Isopropylbenzene	330		ug/kg	320	54.	250
p-Isopropyltoluene	1600		ug/kg	320	62.	250
Naphthalene	5300		ug/kg	1600	250	250
Acrylonitrile	ND		ug/kg	3200	77.	250
n-Propylbenzene	1200		ug/kg	320	40.	250
1,2,3-Trichlorobenzene	ND		ug/kg	1600	54.	250
1,2,4-Trichlorobenzene	ND		ug/kg	1600	250	250
1,3,5-Trimethylbenzene	2500		ug/kg	1600	46.	250
1,2,4-Trimethylbenzene	12000		ug/kg	1600	180	250
1,4-Dioxane	ND		ug/kg	32000	5600	250
1,4-Diethylbenzene	13000		ug/kg	1300	51.	250
4-Ethyltoluene	500	J	ug/kg	1300	38.	250

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-13 D Date Collected: 03/27/13 10:30

Client ID: BH-14 10-15 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	8500		ug/kg	1300	42.	250
Ethyl ether	ND		ug/kg	1600	86.	250
trans-1,4-Dichloro-2-butene	ND		ug/kg	1600	140	250

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	111		70-130
Dibromofluoromethane	96		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-14	Date Collected:	03/27/13 11:00
Client ID:	BH-8 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Analytical Method:	1,8260C		
Analytical Date:	03/29/13 18:57		
Analyst:	PP		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/kg	12	2.5	1
1,1-Dichloroethane	ND		ug/kg	1.8	0.22	1
Chloroform	ND		ug/kg	1.8	0.46	1
Carbon tetrachloride	ND		ug/kg	1.2	0.26	1
1,2-Dichloropropane	ND		ug/kg	4.3	0.28	1
Dibromochloromethane	ND		ug/kg	1.2	0.38	1
1,1,2-Trichloroethane	ND		ug/kg	1.8	0.38	1
Tetrachloroethene	ND		ug/kg	1.2	0.17	1
Chlorobenzene	ND		ug/kg	1.2	0.43	1
Trichlorofluoromethane	ND		ug/kg	6.2	0.15	1
1,2-Dichloroethane	ND		ug/kg	1.2	0.18	1
1,1,1-Trichloroethane	ND		ug/kg	1.2	0.14	1
Bromodichloromethane	ND		ug/kg	1.2	0.28	1
trans-1,3-Dichloropropene	ND		ug/kg	1.2	0.15	1
cis-1,3-Dichloropropene	ND		ug/kg	1.2	0.16	1
1,1-Dichloropropene	ND		ug/kg	6.2	0.56	1
Bromoform	ND		ug/kg	5.0	0.51	1
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.2	0.21	1
Benzene	ND		ug/kg	1.2	0.15	1
Toluene	ND		ug/kg	1.8	0.14	1
Ethylbenzene	ND		ug/kg	1.2	0.18	1
Chloromethane	ND		ug/kg	6.2	0.97	1
Bromomethane	ND		ug/kg	2.5	0.42	1
Vinyl chloride	ND		ug/kg	2.5	0.17	1
Chloroethane	ND		ug/kg	2.5	0.39	1
1,1-Dichloroethene	ND		ug/kg	1.2	0.26	1
trans-1,2-Dichloroethene	ND		ug/kg	1.8	0.26	1
Trichloroethene	ND		ug/kg	1.2	0.19	1
1,2-Dichlorobenzene	ND		ug/kg	6.2	0.23	1
1,3-Dichlorobenzene	ND		ug/kg	6.2	0.23	1
1,4-Dichlorobenzene	ND		ug/kg	6.2	0.30	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-14 Date Collected: 03/27/13 11:00

Client ID: BH-8 10-15 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/kg	2.5	0.13	1
p/m-Xylene	ND		ug/kg	2.5	0.40	1
o-Xylene	ND		ug/kg	2.5	0.34	1
cis-1,2-Dichloroethene	ND		ug/kg	1.2	0.18	1
Dibromomethane	ND		ug/kg	12	0.20	1
Styrene	ND		ug/kg	2.5	0.38	1
Dichlorodifluoromethane	ND		ug/kg	12	0.27	1
Acetone	ND		ug/kg	12	3.8	1
Carbon disulfide	ND		ug/kg	12	2.5	1
2-Butanone	ND		ug/kg	12	0.44	1
Vinyl acetate	ND		ug/kg	12	0.59	1
4-Methyl-2-pentanone	ND		ug/kg	12	0.30	1
1,2,3-Trichloropropane	ND		ug/kg	12	0.28	1
2-Hexanone	ND		ug/kg	12	0.23	1
Bromochloromethane	ND		ug/kg	6.2	0.24	1
2,2-Dichloropropane	ND		ug/kg	6.2	0.28	1
1,2-Dibromoethane	ND		ug/kg	5.0	0.22	1
1,3-Dichloropropane	ND		ug/kg	6.2	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.2	0.39	1
Bromobenzene	ND		ug/kg	6.2	0.26	1
n-Butylbenzene	ND		ug/kg	1.2	0.24	1
sec-Butylbenzene	ND		ug/kg	1.2	0.26	1
tert-Butylbenzene	ND		ug/kg	6.2	0.69	1
o-Chlorotoluene	ND		ug/kg	6.2	0.20	1
p-Chlorotoluene	ND		ug/kg	6.2	0.19	1
1,2-Dibromo-3-chloropropane	ND		ug/kg	6.2	0.98	1
Hexachlorobutadiene	ND		ug/kg	6.2	0.52	1
Isopropylbenzene	ND		ug/kg	1.2	0.21	1
p-Isopropyltoluene	ND		ug/kg	1.2	0.24	1
Naphthalene	ND		ug/kg	6.2	0.95	1
Acrylonitrile	ND		ug/kg	12	0.29	1
n-Propylbenzene	ND		ug/kg	1.2	0.16	1
1,2,3-Trichlorobenzene	ND		ug/kg	6.2	0.21	1
1,2,4-Trichlorobenzene	ND		ug/kg	6.2	0.98	1
1,3,5-Trimethylbenzene	ND		ug/kg	6.2	0.18	1
1,2,4-Trimethylbenzene	ND		ug/kg	6.2	0.71	1
1,4-Dioxane	ND		ug/kg	120	22.	1
1,4-Diethylbenzene	ND		ug/kg	5.0	0.20	1
4-Ethyltoluene	ND		ug/kg	5.0	0.14	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-14	Date Collected:	03/27/13 11:00
Client ID:	BH-8 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4,5-Tetramethylbenzene	ND		ug/kg	5.0	0.16	1
Ethyl ether	ND		ug/kg	6.2	0.33	1
trans-1,4-Dichloro-2-butene	ND		ug/kg	6.2	0.55	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	97		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/29/13 10:32
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,08,10-12 Batch: WG598391-3					
Methylene chloride	ND		ug/kg	10	2.0
1,1-Dichloroethane	ND		ug/kg	1.5	0.18
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.31
2-Chloroethylvinyl ether	ND		ug/kg	20	0.62
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.12
1,2-Dichloroethane	ND		ug/kg	1.0	0.15
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.23
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.13
1,1-Dichloropropene	ND		ug/kg	5.0	0.46
Bromoform	ND		ug/kg	4.0	0.41
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.17
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.11
Ethylbenzene	ND		ug/kg	1.0	0.15
Chloromethane	ND		ug/kg	5.0	0.78
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.14
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.20
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.15
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/29/13 10:32
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,08,10-12 Batch: WG598391-3					
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.24
Methyl tert butyl ether	ND		ug/kg	2.0	0.10
p/m-Xylene	ND		ug/kg	2.0	0.32
o-Xylene	ND		ug/kg	2.0	0.27
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.15
Dibromomethane	ND		ug/kg	10	0.16
Styrene	ND		ug/kg	2.0	0.31
Dichlorodifluoromethane	ND		ug/kg	10	0.22
Acetone	ND		ug/kg	10	3.1
Carbon disulfide	ND		ug/kg	10	2.0
2-Butanone	ND		ug/kg	10	0.36
Vinyl acetate	ND		ug/kg	10	0.48
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
1,2,3-Trichloropropane	ND		ug/kg	10	0.22
2-Hexanone	ND		ug/kg	10	0.19
Bromochloromethane	ND		ug/kg	5.0	0.20
2,2-Dichloropropane	ND		ug/kg	5.0	0.22
1,2-Dibromoethane	ND		ug/kg	4.0	0.18
1,3-Dichloropropane	ND		ug/kg	5.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.32
Bromobenzene	ND		ug/kg	5.0	0.21
n-Butylbenzene	ND		ug/kg	1.0	0.20
sec-Butylbenzene	ND		ug/kg	1.0	0.20
tert-Butylbenzene	ND		ug/kg	5.0	0.56
o-Chlorotoluene	ND		ug/kg	5.0	0.16
p-Chlorotoluene	ND		ug/kg	5.0	0.15
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.79
Hexachlorobutadiene	ND		ug/kg	5.0	0.42
Isopropylbenzene	ND		ug/kg	1.0	0.17

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/29/13 10:32
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,08,10-12 Batch: WG598391-3					
p-Isopropyltoluene	ND		ug/kg	1.0	0.19
Naphthalene	ND		ug/kg	5.0	0.77
Acrylonitrile	ND		ug/kg	10	0.24
Isopropyl Ether	ND		ug/kg	4.0	0.14
tert-Butyl Alcohol	ND		ug/kg	60	0.91
n-Propylbenzene	ND		ug/kg	1.0	0.12
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.17
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.79
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.57
Methyl Acetate	ND		ug/kg	20	0.76
Ethyl Acetate	ND		ug/kg	20	0.82
Acrolein	ND		ug/kg	25	9.2
Cyclohexane	ND		ug/kg	20	1.1
1,4-Dioxane	ND		ug/kg	100	17.
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/kg	20	0.27
1,4-Diethylbenzene	ND		ug/kg	4.0	0.16
4-Ethyltoluene	ND		ug/kg	4.0	0.12
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.13
Tetrahydrofuran	ND		ug/kg	20	0.38
Ethyl ether	ND		ug/kg	5.0	0.26
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	0.45
Methyl cyclohexane	ND		ug/kg	4.0	1.3
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	0.42
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	0.58

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/29/13 10:32
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-05,08,10-12 Batch: WG598391-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	90		70-130
Toluene-d8	103		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	96		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/29/13 11:10
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09,13-14 Batch: WG598408-3					
Methylene chloride	ND		ug/kg	10	2.0
1,1-Dichloroethane	ND		ug/kg	1.5	0.18
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.31
2-Chloroethylvinyl ether	ND		ug/kg	20	0.62
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.12
1,2-Dichloroethane	ND		ug/kg	1.0	0.15
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.23
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.13
1,1-Dichloropropene	ND		ug/kg	5.0	0.46
Bromoform	ND		ug/kg	4.0	0.41
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.17
Benzene	ND		ug/kg	1.0	0.12
Toluene	ND		ug/kg	1.5	0.11
Ethylbenzene	ND		ug/kg	1.0	0.15
Chloromethane	ND		ug/kg	5.0	0.78
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.14
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.20
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.15
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.18

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/29/13 11:10
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09,13-14 Batch: WG598408-3					
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.24
Methyl tert butyl ether	ND		ug/kg	2.0	0.10
p/m-Xylene	ND		ug/kg	2.0	0.32
o-Xylene	ND		ug/kg	2.0	0.27
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.15
Dibromomethane	ND		ug/kg	10	0.16
Styrene	ND		ug/kg	2.0	0.31
Dichlorodifluoromethane	ND		ug/kg	10	0.22
Acetone	ND		ug/kg	10	3.1
Carbon disulfide	ND		ug/kg	10	2.0
2-Butanone	ND		ug/kg	10	0.36
Vinyl acetate	ND		ug/kg	10	0.48
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
1,2,3-Trichloropropane	ND		ug/kg	10	0.22
2-Hexanone	ND		ug/kg	10	0.19
Bromochloromethane	ND		ug/kg	5.0	0.20
2,2-Dichloropropane	ND		ug/kg	5.0	0.22
1,2-Dibromoethane	ND		ug/kg	4.0	0.18
1,3-Dichloropropane	ND		ug/kg	5.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.32
Bromobenzene	ND		ug/kg	5.0	0.21
n-Butylbenzene	ND		ug/kg	1.0	0.20
sec-Butylbenzene	ND		ug/kg	1.0	0.20
tert-Butylbenzene	ND		ug/kg	5.0	0.56
o-Chlorotoluene	ND		ug/kg	5.0	0.16
p-Chlorotoluene	ND		ug/kg	5.0	0.15
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.79
Hexachlorobutadiene	ND		ug/kg	5.0	0.42
Isopropylbenzene	ND		ug/kg	1.0	0.17
p-Isopropyltoluene	ND		ug/kg	1.0	0.19
Naphthalene	ND		ug/kg	5.0	0.77

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/29/13 11:10
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09,13-14 Batch: WG598408-3					
Acrylonitrile	ND		ug/kg	10	0.24
Isopropyl Ether	ND		ug/kg	4.0	0.14
tert-Butyl Alcohol	ND		ug/kg	60	0.91
n-Propylbenzene	ND		ug/kg	1.0	0.12
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.17
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.79
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.57
Methyl Acetate	ND		ug/kg	20	0.76
Ethyl Acetate	ND		ug/kg	20	0.82
Acrolein	ND		ug/kg	25	9.2
Cyclohexane	ND		ug/kg	20	1.1
1,4-Dioxane	ND		ug/kg	100	17.
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/kg	20	0.27
1,4-Diethylbenzene	ND		ug/kg	4.0	0.16
4-Ethyltoluene	ND		ug/kg	4.0	0.12
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.13
Tetrahydrofuran	ND		ug/kg	20	0.38
Ethyl ether	ND		ug/kg	5.0	0.26
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	0.45
Methyl cyclohexane	ND		ug/kg	4.0	1.3
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	0.42
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	0.58
Ethyl Alcohol	ND		ug/kg	1000	210

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/29/13 11:10
Analyst: PP

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 09,13-14 Batch: WG598408-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	97		70-130
Dibromofluoromethane	98		70-130

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/30/13 12:06
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-07 Batch: WG598680-3					
Methylene chloride	ND		ug/kg	10	2.0
1,1-Dichloroethane	ND		ug/kg	1.5	0.18
Chloroform	ND		ug/kg	1.5	0.37
Carbon tetrachloride	ND		ug/kg	1.0	0.21
1,2-Dichloropropane	ND		ug/kg	3.5	0.23
Dibromochloromethane	ND		ug/kg	1.0	0.31
2-Chloroethylvinyl ether	ND		ug/kg	20	0.62
1,1,2-Trichloroethane	ND		ug/kg	1.5	0.30
Tetrachloroethene	ND		ug/kg	1.0	0.14
Chlorobenzene	ND		ug/kg	1.0	0.35
Trichlorofluoromethane	ND		ug/kg	5.0	0.12
1,2-Dichloroethane	ND		ug/kg	1.0	0.15
1,1,1-Trichloroethane	ND		ug/kg	1.0	0.11
Bromodichloromethane	ND		ug/kg	1.0	0.23
trans-1,3-Dichloropropene	ND		ug/kg	1.0	0.12
cis-1,3-Dichloropropene	ND		ug/kg	1.0	0.13
1,1-Dichloropropene	ND		ug/kg	5.0	0.46
Bromoform	ND		ug/kg	4.0	0.41
1,1,2,2-Tetrachloroethane	ND		ug/kg	1.0	0.17
Benzene	ND		ug/kg	1.0	0.12
Toluene	0.24	J	ug/kg	1.5	0.11
Ethylbenzene	ND		ug/kg	1.0	0.15
Chloromethane	ND		ug/kg	5.0	0.78
Bromomethane	ND		ug/kg	2.0	0.34
Vinyl chloride	ND		ug/kg	2.0	0.14
Chloroethane	ND		ug/kg	2.0	0.32
1,1-Dichloroethene	ND		ug/kg	1.0	0.20
trans-1,2-Dichloroethene	ND		ug/kg	1.5	0.21
Trichloroethene	ND		ug/kg	1.0	0.15
1,2-Dichlorobenzene	ND		ug/kg	5.0	0.18
1,3-Dichlorobenzene	ND		ug/kg	5.0	0.18

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/30/13 12:06
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-07 Batch: WG598680-3					
1,4-Dichlorobenzene	ND		ug/kg	5.0	0.24
Methyl tert butyl ether	ND		ug/kg	2.0	0.10
p/m-Xylene	ND		ug/kg	2.0	0.32
o-Xylene	ND		ug/kg	2.0	0.27
cis-1,2-Dichloroethene	ND		ug/kg	1.0	0.15
Dibromomethane	ND		ug/kg	10	0.16
Styrene	ND		ug/kg	2.0	0.31
Dichlorodifluoromethane	ND		ug/kg	10	0.22
Acetone	ND		ug/kg	10	3.1
Carbon disulfide	ND		ug/kg	10	2.0
2-Butanone	ND		ug/kg	10	0.36
Vinyl acetate	ND		ug/kg	10	0.48
4-Methyl-2-pentanone	ND		ug/kg	10	0.24
1,2,3-Trichloropropane	ND		ug/kg	10	0.22
2-Hexanone	ND		ug/kg	10	0.19
Bromochloromethane	ND		ug/kg	5.0	0.20
2,2-Dichloropropane	ND		ug/kg	5.0	0.22
1,2-Dibromoethane	ND		ug/kg	4.0	0.18
1,3-Dichloropropane	ND		ug/kg	5.0	0.17
1,1,1,2-Tetrachloroethane	ND		ug/kg	1.0	0.32
Bromobenzene	ND		ug/kg	5.0	0.21
n-Butylbenzene	ND		ug/kg	1.0	0.20
sec-Butylbenzene	ND		ug/kg	1.0	0.20
tert-Butylbenzene	ND		ug/kg	5.0	0.56
o-Chlorotoluene	ND		ug/kg	5.0	0.16
p-Chlorotoluene	ND		ug/kg	5.0	0.15
1,2-Dibromo-3-chloropropane	ND		ug/kg	5.0	0.79
Hexachlorobutadiene	ND		ug/kg	5.0	0.42
Isopropylbenzene	ND		ug/kg	1.0	0.17
p-Isopropyltoluene	ND		ug/kg	1.0	0.19
Naphthalene	ND		ug/kg	5.0	0.77

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/30/13 12:06
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-07 Batch: WG598680-3					
Acrylonitrile	ND		ug/kg	10	0.24
Isopropyl Ether	ND		ug/kg	4.0	0.14
tert-Butyl Alcohol	ND		ug/kg	60	0.91
n-Propylbenzene	ND		ug/kg	1.0	0.12
1,2,3-Trichlorobenzene	ND		ug/kg	5.0	0.17
1,2,4-Trichlorobenzene	ND		ug/kg	5.0	0.79
1,3,5-Trimethylbenzene	ND		ug/kg	5.0	0.14
1,2,4-Trimethylbenzene	ND		ug/kg	5.0	0.57
Methyl Acetate	ND		ug/kg	20	0.76
Ethyl Acetate	ND		ug/kg	20	0.82
Acrolein	ND		ug/kg	25	9.2
Cyclohexane	ND		ug/kg	20	1.1
1,4-Dioxane	ND		ug/kg	100	17.
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/kg	20	0.27
1,4-Diethylbenzene	ND		ug/kg	4.0	0.16
4-Ethyltoluene	ND		ug/kg	4.0	0.12
1,2,4,5-Tetramethylbenzene	ND		ug/kg	4.0	0.13
Tetrahydrofuran	ND		ug/kg	20	0.38
Ethyl ether	ND		ug/kg	5.0	0.26
trans-1,4-Dichloro-2-butene	ND		ug/kg	5.0	0.45
Methyl cyclohexane	ND		ug/kg	4.0	1.3
Ethyl-Tert-Butyl-Ether	ND		ug/kg	4.0	0.42
Tertiary-Amyl Methyl Ether	ND		ug/kg	4.0	0.58
Ethyl Alcohol	ND		ug/kg	1000	210

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 03/30/13 12:06
Analyst: JC

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 06-07 Batch: WG598680-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08,10-12 Batch: WG598391-1 WG598391-2								
Methylene chloride	98		96		70-130	2		30
1,1-Dichloroethane	94		90		70-130	4		30
Chloroform	88		86		70-130	2		30
Carbon tetrachloride	93		88		70-130	6		30
1,2-Dichloropropane	91		89		70-130	2		30
Dibromochloromethane	98		97		70-130	1		30
2-Chloroethylvinyl ether	91		89			2		30
1,1,2-Trichloroethane	98		96		70-130	2		30
Tetrachloroethene	108		104		70-130	4		30
Chlorobenzene	100		98		70-130	2		30
Trichlorofluoromethane	79		75		70-139	5		30
1,2-Dichloroethane	80		78		70-130	3		30
1,1,1-Trichloroethane	91		88		70-130	3		30
Bromodichloromethane	85		83		70-130	2		30
trans-1,3-Dichloropropene	100		97		70-130	3		30
cis-1,3-Dichloropropene	90		88		70-130	2		30
1,1-Dichloropropene	95		90		70-130	5		30
Bromoform	99		96		70-130	3		30
1,1,2,2-Tetrachloroethane	102		99		70-130	3		30
Benzene	94		90		70-130	4		30
Toluene	102		98		70-130	4		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08,10-12 Batch: WG598391-1 WG598391-2								
Ethylbenzene	100		96		70-130	4		30
Chloromethane	120		115		52-130	4		30
Bromomethane	88		83		57-147	6		30
Vinyl chloride	114		109		67-130	4		30
Chloroethane	67		65		50-151	3		30
1,1-Dichloroethene	100		98		65-135	2		30
trans-1,2-Dichloroethene	98		94		70-130	4		30
Trichloroethene	92		88		70-130	4		30
1,2-Dichlorobenzene	103		101		70-130	2		30
1,3-Dichlorobenzene	105		102		70-130	3		30
1,4-Dichlorobenzene	105		101		70-130	4		30
Methyl tert butyl ether	90		89		66-130	1		30
p/m-Xylene	102		99		70-130	3		30
o-Xylene	100		98		70-130	2		30
cis-1,2-Dichloroethene	93		90		70-130	3		30
Dibromomethane	85		83		70-130	2		30
Styrene	98		95		70-130	3		30
Dichlorodifluoromethane	120		114		30-146	5		30
Acetone	122		100		54-140	20		30
Carbon disulfide	100		98		59-130	2		30
2-Butanone	104		90		70-130	14		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08,10-12 Batch: WG598391-1 WG598391-2								
Vinyl acetate	87		84		70-130	4		30
4-Methyl-2-pentanone	90		88		70-130	2		30
1,2,3-Trichloropropane	99		96		68-130	3		30
2-Hexanone	100		92		70-130	8		30
Bromochloromethane	93		90		70-130	3		30
2,2-Dichloropropane	93		88		70-130	6		30
1,2-Dibromoethane	98		97		70-130	1		30
1,3-Dichloropropane	99		97		69-130	2		30
1,1,1,2-Tetrachloroethane	100		97		70-130	3		30
Bromobenzene	104		102		70-130	2		30
n-Butylbenzene	105		101		70-130	4		30
sec-Butylbenzene	106		102		70-130	4		30
tert-Butylbenzene	107		104		70-130	3		30
o-Chlorotoluene	104		100		70-130	4		30
p-Chlorotoluene	104		101		70-130	3		30
1,2-Dibromo-3-chloropropane	91		89		68-130	2		30
Hexachlorobutadiene	115		111		67-130	4		30
Isopropylbenzene	105		102		70-130	3		30
p-Isopropyltoluene	107		103		70-130	4		30
Naphthalene	106		103		70-130	3		30
Acrylonitrile	96		93		70-130	3		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08,10-12 Batch: WG598391-1 WG598391-2								
Isopropyl Ether	92		89		66-130	3		30
tert-Butyl Alcohol	95		92		70-130	3		30
n-Propylbenzene	105		102		70-130	3		30
1,2,3-Trichlorobenzene	110		105		70-130	5		30
1,2,4-Trichlorobenzene	112		108		70-130	4		30
1,3,5-Trimethylbenzene	106		102		70-130	4		30
1,2,4-Trimethylbenzene	106		102		70-130	4		30
Methyl Acetate	94		89		70-130	5		30
Ethyl Acetate	89		87		70-130	2		30
Acrolein	82		78		70-130	5		30
Cyclohexane	95		91		70-130	4		30
1,4-Dioxane	94		91		65-136	3		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	94		89		70-130	5		30
1,4-Diethylbenzene	109		105		70-130	4		30
4-Ethyltoluene	107		103		70-130	4		30
1,2,4,5-Tetramethylbenzene	107		104		70-130	3		30
Tetrahydrofuran	96		91		66-130	5		30
Ethyl ether	77		75		67-130	3		30
trans-1,4-Dichloro-2-butene	94		91		70-130	3		30
Methyl cyclohexane	90		86		70-130	5		30
Ethyl-Tert-Butyl-Ether	90		87		70-130	3		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-05,08,10-12 Batch: WG598391-1 WG598391-2								
Tertiary-Amyl Methyl Ether	88		86		70-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	89		89		70-130
Toluene-d8	103		103		70-130
4-Bromofluorobenzene	98		98		70-130
Dibromofluoromethane	97		97		70-130

Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09,13-14 Batch: WG598408-1 WG598408-2								
Methylene chloride	101		95		70-130	6		30
1,1-Dichloroethane	93		86		70-130	8		30
Chloroform	93		86		70-130	8		30
Carbon tetrachloride	85		77		70-130	10		30
1,2-Dichloropropane	94		89		70-130	5		30
Dibromochloromethane	91		88		70-130	3		30
2-Chloroethylvinyl ether	100		96			4		30
1,1,2-Trichloroethane	93		89		70-130	4		30
Tetrachloroethene	84		76		70-130	10		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09,13-14 Batch: WG598408-1 WG598408-2								
Chlorobenzene	89		83		70-130	7		30
Trichlorofluoromethane	84		75		70-139	11		30
1,2-Dichloroethane	96		92		70-130	4		30
1,1,1-Trichloroethane	88		80		70-130	10		30
Bromodichloromethane	95		89		70-130	7		30
trans-1,3-Dichloropropene	92		87		70-130	6		30
cis-1,3-Dichloropropene	96		90		70-130	6		30
1,1-Dichloropropene	87		78		70-130	11		30
Bromoform	93		88		70-130	6		30
1,1,2,2-Tetrachloroethane	91		89		70-130	2		30
Benzene	92		85		70-130	8		30
Toluene	83		76		70-130	9		30
Ethylbenzene	85		79		70-130	7		30
Chloromethane	103		92		52-130	11		30
Bromomethane	99		90		57-147	10		30
Vinyl chloride	93		83		67-130	11		30
Chloroethane	97		86		50-151	12		30
1,1-Dichloroethene	89		80		65-135	11		30
trans-1,2-Dichloroethene	92		84		70-130	9		30
Trichloroethene	90		83		70-130	8		30
1,2-Dichlorobenzene	89		84		70-130	6		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09,13-14 Batch: WG598408-1 WG598408-2								
1,3-Dichlorobenzene	88		82		70-130	7		30
1,4-Dichlorobenzene	87		82		70-130	6		30
Methyl tert butyl ether	97		93		66-130	4		30
p/m-Xylene	87		80		70-130	8		30
o-Xylene	88		83		70-130	6		30
cis-1,2-Dichloroethene	94		88		70-130	7		30
Dibromomethane	97		95		70-130	2		30
Styrene	90		85		70-130	6		30
Dichlorodifluoromethane	86		76		30-146	12		30
Acetone	**148**	Q	104		54-140	**35**	Q	30
Carbon disulfide	91		82		59-130	10		30
2-Butanone	114		92		70-130	21		30
Vinyl acetate	101		97		70-130	4		30
4-Methyl-2-pentanone	102		98		70-130	4		30
1,2,3-Trichloropropane	92		89		68-130	3		30
2-Hexanone	104		92		70-130	12		30
Bromochloromethane	99		93		70-130	6		30
2,2-Dichloropropane	89		81		70-130	9		30
1,2-Dibromoethane	94		90		70-130	4		30
1,3-Dichloropropane	92		88		69-130	4		30
1,1,1,2-Tetrachloroethane	90		85		70-130	6		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09,13-14 Batch: WG598408-1 WG598408-2								
Bromobenzene	89		83		70-130	7		30
n-Butylbenzene	82		74		70-130	10		30
sec-Butylbenzene	82		74		70-130	10		30
tert-Butylbenzene	83		76		70-130	9		30
o-Chlorotoluene	85		78		70-130	9		30
p-Chlorotoluene	86		80		70-130	7		30
1,2-Dibromo-3-chloropropane	101		95		68-130	6		30
Hexachlorobutadiene	80		73		67-130	9		30
Isopropylbenzene	85		78		70-130	9		30
p-Isopropyltoluene	83		76		70-130	9		30
Naphthalene	90		88		70-130	2		30
Acrylonitrile	106		104		70-130	2		30
Isopropyl Ether	97		91		66-130	6		30
tert-Butyl Alcohol	94		95		70-130	1		30
n-Propylbenzene	83		75		70-130	10		30
1,2,3-Trichlorobenzene	88		84		70-130	5		30
1,2,4-Trichlorobenzene	89		84		70-130	6		30
1,3,5-Trimethylbenzene	85		78		70-130	9		30
1,2,4-Trimethylbenzene	85		79		70-130	7		30
Methyl Acetate	103		100		70-130	3		30
Ethyl Acetate	109		105		70-130	4		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 09,13-14 Batch: WG598408-1 WG598408-2								
Acrolein	82		78		70-130	5		30
Cyclohexane	82		72		70-130	13		30
1,4-Dioxane	111		110		65-136	1		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	80		71		70-130	12		30
1,4-Diethylbenzene	91		83		70-130	9		30
4-Ethyltoluene	92		84		70-130	9		30
1,2,4,5-Tetramethylbenzene	93		87		70-130	7		30
Tetrahydrofuran	99		97		66-130	2		30
Ethyl ether	98		94		67-130	4		30
trans-1,4-Dichloro-2-butene	94		90		70-130	4		30
Methyl cyclohexane	79		**69**	Q	70-130	14		30
Ethyl-Tert-Butyl-Ether	97		92		70-130	5		30
Tertiary-Amyl Methyl Ether	97		93		70-130	4		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		98		70-130
Toluene-d8	97		96		70-130
4-Bromofluorobenzene	99		98		70-130
Dibromofluoromethane	100		99		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG598680-1 WG598680-2								
Methylene chloride	99		94		70-130	5		30
1,1-Dichloroethane	93		89		70-130	4		30
Chloroform	92		90		70-130	2		30
Carbon tetrachloride	88		83		70-130	6		30
1,2-Dichloropropane	94		92		70-130	2		30
Dibromochloromethane	92		90		70-130	2		30
2-Chloroethylvinyl ether	99		99			0		30
1,1,2-Trichloroethane	92		90		70-130	2		30
Tetrachloroethene	85		81		70-130	5		30
Chlorobenzene	89		85		70-130	5		30
Trichlorofluoromethane	91		86		70-139	6		30
1,2-Dichloroethane	96		95		70-130	1		30
1,1,1-Trichloroethane	89		85		70-130	5		30
Bromodichloromethane	94		91		70-130	3		30
trans-1,3-Dichloropropene	91		89		70-130	2		30
cis-1,3-Dichloropropene	95		92		70-130	3		30
1,1-Dichloropropene	88		84		70-130	5		30
Bromoform	89		90		70-130	1		30
1,1,2,2-Tetrachloroethane	90		90		70-130	0		30
Benzene	93		88		70-130	6		30
Toluene	85		80		70-130	6		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG598680-1 WG598680-2								
Ethylbenzene	86		82		70-130	5		30
Chloromethane	103		96		52-130	7		30
Bromomethane	108		98		57-147	10		30
Vinyl chloride	94		88		67-130	7		30
Chloroethane	98		92		50-151	6		30
1,1-Dichloroethene	91		85		65-135	7		30
trans-1,2-Dichloroethene	93		87		70-130	7		30
Trichloroethene	91		86		70-130	6		30
1,2-Dichlorobenzene	87		85		70-130	2		30
1,3-Dichlorobenzene	86		83		70-130	4		30
1,4-Dichlorobenzene	87		84		70-130	4		30
Methyl tert butyl ether	98		95		66-130	3		30
p/m-Xylene	87		83		70-130	5		30
o-Xylene	89		85		70-130	5		30
cis-1,2-Dichloroethene	94		91		70-130	3		30
Dibromomethane	96		96		70-130	0		30
Styrene	90		87		70-130	3		30
Dichlorodifluoromethane	98		92		30-146	6		30
Acetone	103		92		54-140	11		30
Carbon disulfide	92		86		59-130	7		30
2-Butanone	91		84		70-130	8		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG598680-1 WG598680-2								
Vinyl acetate	99		96		70-130	3		30
4-Methyl-2-pentanone	98		98		70-130	0		30
1,2,3-Trichloropropane	90		88		68-130	2		30
2-Hexanone	92		88		70-130	4		30
Bromochloromethane	98		96		70-130	2		30
2,2-Dichloropropane	90		85		70-130	6		30
1,2-Dibromoethane	94		92		70-130	2		30
1,3-Dichloropropane	90		90		69-130	0		30
1,1,1,2-Tetrachloroethane	90		87		70-130	3		30
Bromobenzene	88		85		70-130	3		30
n-Butylbenzene	83		78		70-130	6		30
sec-Butylbenzene	82		78		70-130	5		30
tert-Butylbenzene	84		78		70-130	7		30
o-Chlorotoluene	85		80		70-130	6		30
p-Chlorotoluene	86		82		70-130	5		30
1,2-Dibromo-3-chloropropane	98		95		68-130	3		30
Hexachlorobutadiene	81		77		67-130	5		30
Isopropylbenzene	86		82		70-130	5		30
p-Isopropyltoluene	84		79		70-130	6		30
Naphthalene	89		88		70-130	1		30
Acrylonitrile	103		100		70-130	3		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG598680-1 WG598680-2								
Isopropyl Ether	96		93		66-130	3		30
tert-Butyl Alcohol	90		90		70-130	0		30
n-Propylbenzene	83		78		70-130	6		30
1,2,3-Trichlorobenzene	87		86		70-130	1		30
1,2,4-Trichlorobenzene	89		86		70-130	3		30
1,3,5-Trimethylbenzene	85		81		70-130	5		30
1,2,4-Trimethylbenzene	85		81		70-130	5		30
Methyl Acetate	98		97		70-130	1		30
Ethyl Acetate	102		103		70-130	1		30
Acrolein	78		77		70-130	1		30
Cyclohexane	89		83		70-130	7		30
1,4-Dioxane	105		106		65-136	1		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	90		85		70-130	6		30
1,4-Diethylbenzene	91		87		70-130	4		30
4-Ethyltoluene	92		88		70-130	4		30
1,2,4,5-Tetramethylbenzene	93		90		70-130	3		30
Tetrahydrofuran	99		96		66-130	3		30
Ethyl ether	95		94		67-130	1		30
trans-1,4-Dichloro-2-butene	92		90		70-130	2		30
Methyl cyclohexane	88		83		70-130	6		30
Ethyl-Tert-Butyl-Ether	96		94		70-130	2		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 06-07 Batch: WG598680-1 WG598680-2								
Tertiary-Amyl Methyl Ether	96		95		70-130	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	95		97		70-130
Toluene-d8	97		97		70-130
4-Bromofluorobenzene	99		99		70-130
Dibromofluoromethane	98		99		70-130

SEMIVOLATILES

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-01	Date Collected:	03/27/13 11:30
Client ID:	BH-15 10-12	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	04/01/13 12:06
Analytical Date:	04/02/13 11:57		
Analyst:	JB		
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	40.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	64.	1
Hexachlorobenzene	ND		ug/kg	120	36.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	55.	1
2-Chloronaphthalene	ND		ug/kg	200	64.	1
1,2-Dichlorobenzene	ND		ug/kg	200	64.	1
1,3-Dichlorobenzene	ND		ug/kg	200	62.	1
1,4-Dichlorobenzene	ND		ug/kg	200	60.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	42.	1
2,6-Dinitrotoluene	ND		ug/kg	200	50.	1
Fluoranthene	ND		ug/kg	120	36.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	60.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	45.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	69.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	59.	1
Hexachlorobutadiene	ND		ug/kg	200	55.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	120	1
Hexachloroethane	ND		ug/kg	160	36.	1
Isophorone	ND		ug/kg	180	52.	1
Naphthalene	ND		ug/kg	200	65.	1
Nitrobenzene	ND		ug/kg	180	47.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	41.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	58.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	51.	1
Butyl benzyl phthalate	ND		ug/kg	200	38.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	48.	1
Diethyl phthalate	ND		ug/kg	200	41.	1
Dimethyl phthalate	ND		ug/kg	200	50.	1
Benzo(a)anthracene	ND		ug/kg	120	38.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-01 Date Collected: 03/27/13 11:30

Client ID: BH-15 10-12 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	40.	1
Benzo(k)fluoranthene	ND		ug/kg	120	37.	1
Chrysene	ND		ug/kg	120	38.	1
Acenaphthylene	ND		ug/kg	160	37.	1
Anthracene	ND		ug/kg	120	32.	1
Benzo(ghi)perylene	ND		ug/kg	160	41.	1
Fluorene	ND		ug/kg	200	56.	1
Phenanthrene	ND		ug/kg	120	38.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	38.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	43.	1
Pyrene	ND		ug/kg	120	38.	1
Biphenyl	ND		ug/kg	450	64.	1
4-Chloroaniline	ND		ug/kg	200	52.	1
2-Nitroaniline	ND		ug/kg	200	55.	1
3-Nitroaniline	ND		ug/kg	200	54.	1
4-Nitroaniline	ND		ug/kg	200	53.	1
Dibenzofuran	ND		ug/kg	200	65.	1
2-Methylnaphthalene	ND		ug/kg	240	62.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	61.	1
Acetophenone	ND		ug/kg	200	61.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	200	57.	1
2-Chlorophenol	ND		ug/kg	200	59.	1
2,4-Dichlorophenol	ND		ug/kg	180	63.	1
2,4-Dimethylphenol	ND		ug/kg	200	58.	1
2-Nitrophenol	ND		ug/kg	420	61.	1
4-Nitrophenol	ND		ug/kg	270	63.	1
2,4-Dinitrophenol	ND		ug/kg	940	270	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	72.	1
Pentachlorophenol	ND		ug/kg	160	42.	1
Phenol	ND		ug/kg	200	58.	1
2-Methylphenol	ND		ug/kg	200	63.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	64.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	63.	1
Benzoic Acid	ND		ug/kg	630	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	42.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-01	Date Collected:	03/27/13 11:30
Client ID:	BH-15 10-12	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	58		25-120
Phenol-d6	57		10-120
Nitrobenzene-d5	52		23-120
2-Fluorobiphenyl	48		30-120
2,4,6-Tribromophenol	52		0-136
4-Terphenyl-d14	52		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-02	Date Collected:	03/27/13 12:00
Client ID:	BH 16 10-12	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	03/28/13 08:47
Analytical Date:	03/29/13 11:03		
Analyst:	JB		
Percent Solids:	78%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	170	43.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	69.	1
Hexachlorobenzene	ND		ug/kg	130	39.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	59.	1
2-Chloronaphthalene	ND		ug/kg	210	69.	1
1,2-Dichlorobenzene	ND		ug/kg	210	69.	1
1,3-Dichlorobenzene	ND		ug/kg	210	66.	1
1,4-Dichlorobenzene	ND		ug/kg	210	64.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	56.	1
2,4-Dinitrotoluene	ND		ug/kg	210	46.	1
2,6-Dinitrotoluene	ND		ug/kg	210	54.	1
Fluoranthene	ND		ug/kg	130	39.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	64.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	48.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	74.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	64.	1
Hexachlorobutadiene	ND		ug/kg	210	59.	1
Hexachlorocyclopentadiene	ND		ug/kg	600	140	1
Hexachloroethane	ND		ug/kg	170	38.	1
Isophorone	ND		ug/kg	190	56.	1
Naphthalene	ND		ug/kg	210	70.	1
Nitrobenzene	ND		ug/kg	190	50.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	170	44.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	63.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	210	55.	1
Butyl benzyl phthalate	ND		ug/kg	210	41.	1
Di-n-butylphthalate	ND		ug/kg	210	41.	1
Di-n-octylphthalate	ND		ug/kg	210	52.	1
Diethyl phthalate	ND		ug/kg	210	45.	1
Dimethyl phthalate	ND		ug/kg	210	54.	1
Benzo(a)anthracene	ND		ug/kg	130	41.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-02 Date Collected: 03/27/13 12:00

Client ID: BH 16 10-12 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	170	52.	1
Benzo(b)fluoranthene	ND		ug/kg	130	43.	1
Benzo(k)fluoranthene	ND		ug/kg	130	40.	1
Chrysene	ND		ug/kg	130	41.	1
Acenaphthylene	ND		ug/kg	170	39.	1
Anthracene	ND		ug/kg	130	35.	1
Benzo(ghi)perylene	ND		ug/kg	170	44.	1
Fluorene	ND		ug/kg	210	60.	1
Phenanthrene	ND		ug/kg	130	41.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	41.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	170	47.	1
Pyrene	ND		ug/kg	130	41.	1
Biphenyl	ND		ug/kg	480	70.	1
4-Chloroaniline	ND		ug/kg	210	56.	1
2-Nitroaniline	ND		ug/kg	210	59.	1
3-Nitroaniline	ND		ug/kg	210	58.	1
4-Nitroaniline	ND		ug/kg	210	57.	1
Dibenzofuran	ND		ug/kg	210	70.	1
2-Methylnaphthalene	ND		ug/kg	250	67.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	65.	1
Acetophenone	ND		ug/kg	210	65.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	40.	1
P-Chloro-M-Cresol	ND		ug/kg	210	61.	1
2-Chlorophenol	ND		ug/kg	210	64.	1
2,4-Dichlorophenol	ND		ug/kg	190	68.	1
2,4-Dimethylphenol	ND		ug/kg	210	63.	1
2-Nitrophenol	ND		ug/kg	460	66.	1
4-Nitrophenol	ND		ug/kg	300	68.	1
2,4-Dinitrophenol	ND		ug/kg	1000	290	1
4,6-Dinitro-o-cresol	ND		ug/kg	550	77.	1
Pentachlorophenol	ND		ug/kg	170	45.	1
Phenol	ND		ug/kg	210	62.	1
2-Methylphenol	ND		ug/kg	210	68.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	69.	1
2,4,5-Trichlorophenol	ND		ug/kg	210	68.	1
Benzoic Acid	ND		ug/kg	680	210	1
Benzyl Alcohol	ND		ug/kg	210	65.	1
Carbazole	ND		ug/kg	210	45.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-02	Date Collected:	03/27/13 12:00
Client ID:	BH 16 10-12	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	76		25-120
Phenol-d6	72		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	74		30-120
2,4,6-Tribromophenol	85		0-136
4-Terphenyl-d14	57		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-03	Date Collected:	03/27/13 12:30
Client ID:	BH 18 10-13	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	03/28/13 08:47
Analytical Date:	03/29/13 11:30		
Analyst:	JB		
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	41.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	65.	1
Hexachlorobenzene	ND		ug/kg	120	37.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	56.	1
2-Chloronaphthalene	ND		ug/kg	200	65.	1
1,2-Dichlorobenzene	ND		ug/kg	200	65.	1
1,3-Dichlorobenzene	ND		ug/kg	200	63.	1
1,4-Dichlorobenzene	ND		ug/kg	200	60.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	43.	1
2,6-Dinitrotoluene	ND		ug/kg	200	51.	1
Fluoranthene	ND		ug/kg	120	36.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	60.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	46.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	70.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	60.	1
Hexachlorobutadiene	ND		ug/kg	200	56.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	130	1
Hexachloroethane	ND		ug/kg	160	36.	1
Isophorone	ND		ug/kg	180	53.	1
Naphthalene	ND		ug/kg	200	66.	1
Nitrobenzene	ND		ug/kg	180	47.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	42.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	59.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	52.	1
Butyl benzyl phthalate	ND		ug/kg	200	39.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	49.	1
Diethyl phthalate	ND		ug/kg	200	42.	1
Dimethyl phthalate	ND		ug/kg	200	50.	1
Benzo(a)anthracene	ND		ug/kg	120	39.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-03 Date Collected: 03/27/13 12:30

Client ID: BH 18 10-13 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	40.	1
Benzo(k)fluoranthene	ND		ug/kg	120	38.	1
Chrysene	ND		ug/kg	120	39.	1
Acenaphthylene	ND		ug/kg	160	37.	1
Anthracene	ND		ug/kg	120	33.	1
Benzo(ghi)perylene	ND		ug/kg	160	41.	1
Fluorene	ND		ug/kg	200	57.	1
Phenanthrene	ND		ug/kg	120	39.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	38.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	44.	1
Pyrene	ND		ug/kg	120	39.	1
Biphenyl	ND		ug/kg	450	66.	1
4-Chloroaniline	ND		ug/kg	200	52.	1
2-Nitroaniline	ND		ug/kg	200	56.	1
3-Nitroaniline	ND		ug/kg	200	55.	1
4-Nitroaniline	ND		ug/kg	200	54.	1
Dibenzofuran	ND		ug/kg	200	66.	1
2-Methylnaphthalene	ND		ug/kg	240	64.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	62.	1
Acetophenone	ND		ug/kg	200	62.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	58.	1
2-Chlorophenol	ND		ug/kg	200	60.	1
2,4-Dichlorophenol	ND		ug/kg	180	64.	1
2,4-Dimethylphenol	ND		ug/kg	200	59.	1
2-Nitrophenol	ND		ug/kg	430	62.	1
4-Nitrophenol	ND		ug/kg	280	64.	1
2,4-Dinitrophenol	ND		ug/kg	960	270	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	73.	1
Pentachlorophenol	ND		ug/kg	160	42.	1
Phenol	ND		ug/kg	200	59.	1
2-Methylphenol	ND		ug/kg	200	64.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	65.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	64.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	43.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-03	Date Collected:	03/27/13 12:30
Client ID:	BH 18 10-13	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	80		25-120
Phenol-d6	77		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	79		30-120
2,4,6-Tribromophenol	87		0-136
4-Terphenyl-d14	66		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-04	Date Collected:	03/27/13 13:00
Client ID:	BH 19 10-13	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	03/28/13 08:47
Analytical Date:	03/29/13 11:56		
Analyst:	JB		
Percent Solids:	86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	39.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	62.	1
Hexachlorobenzene	ND		ug/kg	110	35.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	53.	1
2-Chloronaphthalene	ND		ug/kg	190	61.	1
1,2-Dichlorobenzene	ND		ug/kg	190	62.	1
1,3-Dichlorobenzene	ND		ug/kg	190	59.	1
1,4-Dichlorobenzene	ND		ug/kg	190	57.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	50.	1
2,4-Dinitrotoluene	ND		ug/kg	190	41.	1
2,6-Dinitrotoluene	ND		ug/kg	190	48.	1
Fluoranthene	ND		ug/kg	110	34.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	57.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	43.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	66.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	57.	1
Hexachlorobutadiene	ND		ug/kg	190	53.	1
Hexachlorocyclopentadiene	ND		ug/kg	540	120	1
Hexachloroethane	ND		ug/kg	150	34.	1
Isophorone	ND		ug/kg	170	50.	1
Naphthalene	ND		ug/kg	190	62.	1
Nitrobenzene	ND		ug/kg	170	45.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	150	40.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	56.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	190	49.	1
Butyl benzyl phthalate	ND		ug/kg	190	37.	1
Di-n-butylphthalate	ND		ug/kg	190	36.	1
Di-n-octylphthalate	ND		ug/kg	190	46.	1
Diethyl phthalate	ND		ug/kg	190	40.	1
Dimethyl phthalate	ND		ug/kg	190	48.	1
Benzo(a)anthracene	ND		ug/kg	110	37.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-04 Date Collected: 03/27/13 13:00

Client ID: BH 19 10-13 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	150	46.	1
Benzo(b)fluoranthene	ND		ug/kg	110	38.	1
Benzo(k)fluoranthene	ND		ug/kg	110	36.	1
Chrysene	ND		ug/kg	110	37.	1
Acenaphthylene	ND		ug/kg	150	35.	1
Anthracene	ND		ug/kg	110	31.	1
Benzo(ghi)perylene	ND		ug/kg	150	39.	1
Fluorene	ND		ug/kg	190	54.	1
Phenanthrene	ND		ug/kg	110	37.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	36.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	150	42.	1
Pyrene	ND		ug/kg	110	36.	1
Biphenyl	ND		ug/kg	430	62.	1
4-Chloroaniline	ND		ug/kg	190	50.	1
2-Nitroaniline	ND		ug/kg	190	53.	1
3-Nitroaniline	ND		ug/kg	190	52.	1
4-Nitroaniline	ND		ug/kg	190	51.	1
Dibenzofuran	ND		ug/kg	190	63.	1
2-Methylnaphthalene	ND		ug/kg	220	60.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	58.	1
Acetophenone	ND		ug/kg	190	58.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	36.	1
P-Chloro-M-Cresol	ND		ug/kg	190	54.	1
2-Chlorophenol	ND		ug/kg	190	57.	1
2,4-Dichlorophenol	ND		ug/kg	170	61.	1
2,4-Dimethylphenol	ND		ug/kg	190	56.	1
2-Nitrophenol	ND		ug/kg	410	59.	1
4-Nitrophenol	ND		ug/kg	260	61.	1
2,4-Dinitrophenol	ND		ug/kg	900	260	1
4,6-Dinitro-o-cresol	ND		ug/kg	490	69.	1
Pentachlorophenol	ND		ug/kg	150	40.	1
Phenol	ND		ug/kg	190	56.	1
2-Methylphenol	ND		ug/kg	190	61.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	62.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	61.	1
Benzoic Acid	ND		ug/kg	610	190	1
Benzyl Alcohol	ND		ug/kg	190	58.	1
Carbazole	ND		ug/kg	190	40.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-04	Date Collected:	03/27/13 13:00
Client ID:	BH 19 10-13	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	71		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	73		30-120
2,4,6-Tribromophenol	81		0-136
4-Terphenyl-d14	65		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-05	Date Collected:	03/26/13 12:00
Client ID:	BH-2 10-14	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	03/28/13 08:47
Analytical Date:	03/29/13 12:23		
Analyst:	JB		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	40.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	64.	1
Hexachlorobenzene	ND		ug/kg	120	37.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	55.	1
2-Chloronaphthalene	ND		ug/kg	200	64.	1
1,2-Dichlorobenzene	ND		ug/kg	200	65.	1
1,3-Dichlorobenzene	ND		ug/kg	200	62.	1
1,4-Dichlorobenzene	ND		ug/kg	200	60.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	42.	1
2,6-Dinitrotoluene	ND		ug/kg	200	50.	1
Fluoranthene	ND		ug/kg	120	36.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	60.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	45.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	69.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	60.	1
Hexachlorobutadiene	ND		ug/kg	200	56.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	130	1
Hexachloroethane	ND		ug/kg	160	36.	1
Isophorone	ND		ug/kg	180	52.	1
Naphthalene	ND		ug/kg	200	65.	1
Nitrobenzene	ND		ug/kg	180	47.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	41.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	59.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	52.	1
Butyl benzyl phthalate	ND		ug/kg	200	38.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	48.	1
Diethyl phthalate	ND		ug/kg	200	42.	1
Dimethyl phthalate	ND		ug/kg	200	50.	1
Benzo(a)anthracene	ND		ug/kg	120	38.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-05 Date Collected: 03/26/13 12:00

Client ID: BH-2 10-14 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	40.	1
Benzo(k)fluoranthene	ND		ug/kg	120	38.	1
Chrysene	ND		ug/kg	120	39.	1
Acenaphthylene	ND		ug/kg	160	37.	1
Anthracene	ND		ug/kg	120	33.	1
Benzo(ghi)perylene	ND		ug/kg	160	41.	1
Fluorene	ND		ug/kg	200	56.	1
Phenanthrene	ND		ug/kg	120	38.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	38.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	44.	1
Pyrene	ND		ug/kg	120	38.	1
Biphenyl	ND		ug/kg	450	65.	1
4-Chloroaniline	ND		ug/kg	200	52.	1
2-Nitroaniline	ND		ug/kg	200	56.	1
3-Nitroaniline	ND		ug/kg	200	54.	1
4-Nitroaniline	ND		ug/kg	200	53.	1
Dibenzofuran	ND		ug/kg	200	66.	1
2-Methylnaphthalene	ND		ug/kg	240	63.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	61.	1
Acetophenone	ND		ug/kg	200	61.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	200	57.	1
2-Chlorophenol	ND		ug/kg	200	59.	1
2,4-Dichlorophenol	ND		ug/kg	180	64.	1
2,4-Dimethylphenol	ND		ug/kg	200	59.	1
2-Nitrophenol	ND		ug/kg	420	61.	1
4-Nitrophenol	ND		ug/kg	280	64.	1
2,4-Dinitrophenol	ND		ug/kg	940	270	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	72.	1
Pentachlorophenol	ND		ug/kg	160	42.	1
Phenol	ND		ug/kg	200	58.	1
2-Methylphenol	ND		ug/kg	200	63.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	64.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	64.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	42.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-05	Date Collected:	03/26/13 12:00
Client ID:	BH-2 10-14	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		25-120
Phenol-d6	62		10-120
Nitrobenzene-d5	58		23-120
2-Fluorobiphenyl	67		30-120
2,4,6-Tribromophenol	76		0-136
4-Terphenyl-d14	54		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-06	Date Collected:	03/26/13 13:30
Client ID:	BH-4 15-20	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	03/28/13 08:47
Analytical Date:	03/29/13 12:49		
Analyst:	JB		
Percent Solids:	86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	40.	1
1,2,4-Trichlorobenzene	ND		ug/kg	190	63.	1
Hexachlorobenzene	ND		ug/kg	120	36.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	54.	1
2-Chloronaphthalene	ND		ug/kg	190	63.	1
1,2-Dichlorobenzene	ND		ug/kg	190	63.	1
1,3-Dichlorobenzene	ND		ug/kg	190	61.	1
1,4-Dichlorobenzene	ND		ug/kg	190	59.	1
3,3'-Dichlorobenzidine	ND		ug/kg	190	51.	1
2,4-Dinitrotoluene	ND		ug/kg	190	42.	1
2,6-Dinitrotoluene	ND		ug/kg	190	50.	1
Fluoranthene	ND		ug/kg	120	36.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	190	59.	1
4-Bromophenyl phenyl ether	ND		ug/kg	190	44.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	68.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	58.	1
Hexachlorobutadiene	ND		ug/kg	190	54.	1
Hexachlorocyclopentadiene	ND		ug/kg	550	120	1
Hexachloroethane	ND		ug/kg	150	35.	1
Isophorone	ND		ug/kg	170	51.	1
Naphthalene	ND		ug/kg	190	64.	1
Nitrobenzene	ND		ug/kg	170	46.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	150	41.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	190	58.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	190	51.	1
Butyl benzyl phthalate	ND		ug/kg	190	38.	1
Di-n-butylphthalate	ND		ug/kg	190	37.	1
Di-n-octylphthalate	ND		ug/kg	190	48.	1
Diethyl phthalate	ND		ug/kg	190	41.	1
Dimethyl phthalate	ND		ug/kg	190	49.	1
Benzo(a)anthracene	ND		ug/kg	120	38.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-06 Date Collected: 03/26/13 13:30

Client ID: BH-4 15-20 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	150	47.	1
Benzo(b)fluoranthene	ND		ug/kg	120	39.	1
Benzo(k)fluoranthene	ND		ug/kg	120	37.	1
Chrysene	ND		ug/kg	120	38.	1
Acenaphthylene	ND		ug/kg	150	36.	1
Anthracene	ND		ug/kg	120	32.	1
Benzo(ghi)perylene	ND		ug/kg	150	40.	1
Fluorene	ND		ug/kg	190	55.	1
Phenanthrene	ND		ug/kg	120	38.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	37.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	150	43.	1
Pyrene	ND		ug/kg	120	38.	1
Biphenyl	ND		ug/kg	440	64.	1
4-Chloroaniline	ND		ug/kg	190	51.	1
2-Nitroaniline	ND		ug/kg	190	54.	1
3-Nitroaniline	ND		ug/kg	190	53.	1
4-Nitroaniline	ND		ug/kg	190	52.	1
Dibenzofuran	ND		ug/kg	190	64.	1
2-Methylnaphthalene	ND		ug/kg	230	62.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	190	60.	1
Acetophenone	ND		ug/kg	190	60.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	36.	1
P-Chloro-M-Cresol	ND		ug/kg	190	56.	1
2-Chlorophenol	ND		ug/kg	190	58.	1
2,4-Dichlorophenol	ND		ug/kg	170	63.	1
2,4-Dimethylphenol	ND		ug/kg	190	58.	1
2-Nitrophenol	ND		ug/kg	420	60.	1
4-Nitrophenol	ND		ug/kg	270	63.	1
2,4-Dinitrophenol	ND		ug/kg	930	260	1
4,6-Dinitro-o-cresol	ND		ug/kg	500	71.	1
Pentachlorophenol	ND		ug/kg	150	41.	1
Phenol	ND		ug/kg	190	57.	1
2-Methylphenol	ND		ug/kg	190	62.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	63.	1
2,4,5-Trichlorophenol	ND		ug/kg	190	63.	1
Benzoic Acid	ND		ug/kg	630	200	1
Benzyl Alcohol	ND		ug/kg	190	60.	1
Carbazole	ND		ug/kg	190	42.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-06	Date Collected:	03/26/13 13:30
Client ID:	BH-4 15-20	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		25-120
Phenol-d6	65		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	73		30-120
2,4,6-Tribromophenol	77		0-136
4-Terphenyl-d14	66		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-07	Date Collected:	03/26/13 16:00
Client ID:	BH-5 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	03/28/13 08:47
Analytical Date:	03/29/13 13:16		
Analyst:	JB		
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	41.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	65.	1
Hexachlorobenzene	ND		ug/kg	120	37.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	56.	1
2-Chloronaphthalene	ND		ug/kg	200	64.	1
1,2-Dichlorobenzene	ND		ug/kg	200	65.	1
1,3-Dichlorobenzene	ND		ug/kg	200	62.	1
1,4-Dichlorobenzene	ND		ug/kg	200	60.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	43.	1
2,6-Dinitrotoluene	ND		ug/kg	200	51.	1
Fluoranthene	ND		ug/kg	120	36.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	60.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	46.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	70.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	60.	1
Hexachlorobutadiene	ND		ug/kg	200	56.	1
Hexachlorocyclopentadiene	ND		ug/kg	570	130	1
Hexachloroethane	ND		ug/kg	160	36.	1
Isophorone	ND		ug/kg	180	53.	1
Naphthalene	250		ug/kg	200	66.	1
Nitrobenzene	ND		ug/kg	180	47.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	42.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	59.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	52.	1
Butyl benzyl phthalate	ND		ug/kg	200	39.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	49.	1
Diethyl phthalate	ND		ug/kg	200	42.	1
Dimethyl phthalate	ND		ug/kg	200	50.	1
Benzo(a)anthracene	ND		ug/kg	120	39.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-07 Date Collected: 03/26/13 16:00

Client ID: BH-5 10-15 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	40.	1
Benzo(k)fluoranthene	ND		ug/kg	120	38.	1
Chrysene	ND		ug/kg	120	39.	1
Acenaphthylene	ND		ug/kg	160	37.	1
Anthracene	66	J	ug/kg	120	33.	1
Benzo(ghi)perylene	ND		ug/kg	160	41.	1
Fluorene	ND		ug/kg	200	57.	1
Phenanthrene	760		ug/kg	120	39.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	38.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	44.	1
Pyrene	130		ug/kg	120	38.	1
Biphenyl	280	J	ug/kg	450	65.	1
4-Chloroaniline	ND		ug/kg	200	52.	1
2-Nitroaniline	ND		ug/kg	200	56.	1
3-Nitroaniline	ND		ug/kg	200	55.	1
4-Nitroaniline	ND		ug/kg	200	53.	1
Dibenzofuran	ND		ug/kg	200	66.	1
2-Methylnaphthalene	3400		ug/kg	240	63.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	61.	1
Acetophenone	ND		ug/kg	200	61.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	200	57.	1
2-Chlorophenol	ND		ug/kg	200	60.	1
2,4-Dichlorophenol	ND		ug/kg	180	64.	1
2,4-Dimethylphenol	ND		ug/kg	200	59.	1
2-Nitrophenol	ND		ug/kg	430	62.	1
4-Nitrophenol	ND		ug/kg	280	64.	1
2,4-Dinitrophenol	ND		ug/kg	950	270	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	72.	1
Pentachlorophenol	ND		ug/kg	160	42.	1
Phenol	ND		ug/kg	200	59.	1
2-Methylphenol	ND		ug/kg	200	64.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	65.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	64.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	42.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-07	Date Collected:	03/26/13 16:00
Client ID:	BH-5 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	70		25-120
Phenol-d6	66		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	77		30-120
2,4,6-Tribromophenol	87		0-136
4-Terphenyl-d14	55		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-08	Date Collected:	03/26/13 16:25
Client ID:	BH-5 17-20	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	03/28/13 08:47
Analytical Date:	03/29/13 13:43		
Analyst:	JB		
Percent Solids:	87%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	150	38.	1
1,2,4-Trichlorobenzene	ND		ug/kg	180	61.	1
Hexachlorobenzene	ND		ug/kg	110	34.	1
Bis(2-chloroethyl)ether	ND		ug/kg	170	52.	1
2-Chloronaphthalene	ND		ug/kg	180	60.	1
1,2-Dichlorobenzene	ND		ug/kg	180	61.	1
1,3-Dichlorobenzene	ND		ug/kg	180	58.	1
1,4-Dichlorobenzene	ND		ug/kg	180	56.	1
3,3'-Dichlorobenzidine	ND		ug/kg	180	49.	1
2,4-Dinitrotoluene	ND		ug/kg	180	40.	1
2,6-Dinitrotoluene	ND		ug/kg	180	48.	1
Fluoranthene	ND		ug/kg	110	34.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	180	56.	1
4-Bromophenyl phenyl ether	ND		ug/kg	180	43.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	220	65.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	200	56.	1
Hexachlorobutadiene	ND		ug/kg	180	52.	1
Hexachlorocyclopentadiene	ND		ug/kg	530	120	1
Hexachloroethane	ND		ug/kg	150	34.	1
Isophorone	ND		ug/kg	170	49.	1
Naphthalene	ND		ug/kg	180	62.	1
Nitrobenzene	ND		ug/kg	170	44.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	150	39.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	180	55.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	180	49.	1
Butyl benzyl phthalate	ND		ug/kg	180	36.	1
Di-n-butylphthalate	ND		ug/kg	180	36.	1
Di-n-octylphthalate	ND		ug/kg	180	46.	1
Diethyl phthalate	ND		ug/kg	180	39.	1
Dimethyl phthalate	ND		ug/kg	180	47.	1
Benzo(a)anthracene	ND		ug/kg	110	36.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-08 Date Collected: 03/26/13 16:25

Client ID: BH-5 17-20 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	150	45.	1
Benzo(b)fluoranthene	ND		ug/kg	110	37.	1
Benzo(k)fluoranthene	ND		ug/kg	110	35.	1
Chrysene	ND		ug/kg	110	36.	1
Acenaphthylene	ND		ug/kg	150	35.	1
Anthracene	ND		ug/kg	110	31.	1
Benzo(ghi)perylene	ND		ug/kg	150	39.	1
Fluorene	ND		ug/kg	180	53.	1
Phenanthrene	ND		ug/kg	110	36.	1
Dibenzo(a,h)anthracene	ND		ug/kg	110	36.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	150	41.	1
Pyrene	ND		ug/kg	110	36.	1
Biphenyl	ND		ug/kg	420	61.	1
4-Chloroaniline	ND		ug/kg	180	49.	1
2-Nitroaniline	ND		ug/kg	180	52.	1
3-Nitroaniline	ND		ug/kg	180	51.	1
4-Nitroaniline	ND		ug/kg	180	50.	1
Dibenzofuran	ND		ug/kg	180	62.	1
2-Methylnaphthalene	ND		ug/kg	220	59.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	180	58.	1
Acetophenone	ND		ug/kg	180	58.	1
2,4,6-Trichlorophenol	ND		ug/kg	110	35.	1
P-Chloro-M-Cresol	ND		ug/kg	180	54.	1
2-Chlorophenol	ND		ug/kg	180	56.	1
2,4-Dichlorophenol	ND		ug/kg	170	60.	1
2,4-Dimethylphenol	ND		ug/kg	180	55.	1
2-Nitrophenol	ND		ug/kg	400	58.	1
4-Nitrophenol	ND		ug/kg	260	60.	1
2,4-Dinitrophenol	ND		ug/kg	890	250	1
4,6-Dinitro-o-cresol	ND		ug/kg	480	68.	1
Pentachlorophenol	ND		ug/kg	150	40.	1
Phenol	ND		ug/kg	180	55.	1
2-Methylphenol	ND		ug/kg	180	60.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	270	61.	1
2,4,5-Trichlorophenol	ND		ug/kg	180	60.	1
Benzoic Acid	ND		ug/kg	600	190	1
Benzyl Alcohol	ND		ug/kg	180	57.	1
Carbazole	ND		ug/kg	180	40.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-08	Date Collected:	03/26/13 16:25
Client ID:	BH-5 17-20	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	72		10-120
Nitrobenzene-d5	65		23-120
2-Fluorobiphenyl	77		30-120
2,4,6-Tribromophenol	84		0-136
4-Terphenyl-d14	79		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-09	Date Collected:	03/26/13 14:00
Client ID:	BH-6 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	03/28/13 08:47
Analytical Date:	03/29/13 14:09		
Analyst:	JB		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	40.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	64.	1
Hexachlorobenzene	ND		ug/kg	120	36.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	55.	1
2-Chloronaphthalene	ND		ug/kg	200	64.	1
1,2-Dichlorobenzene	ND		ug/kg	200	64.	1
1,3-Dichlorobenzene	ND		ug/kg	200	61.	1
1,4-Dichlorobenzene	ND		ug/kg	200	59.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	42.	1
2,6-Dinitrotoluene	ND		ug/kg	200	50.	1
Fluoranthene	ND		ug/kg	120	36.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	59.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	45.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	230	69.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	59.	1
Hexachlorobutadiene	ND		ug/kg	200	55.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	120	1
Hexachloroethane	ND		ug/kg	160	35.	1
Isophorone	ND		ug/kg	180	52.	1
Naphthalene	950		ug/kg	200	65.	1
Nitrobenzene	ND		ug/kg	180	46.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	41.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	58.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	51.	1
Butyl benzyl phthalate	ND		ug/kg	200	38.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	48.	1
Diethyl phthalate	ND		ug/kg	200	41.	1
Dimethyl phthalate	ND		ug/kg	200	50.	1
Benzo(a)anthracene	ND		ug/kg	120	38.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-09 Date Collected: 03/26/13 14:00

Client ID: BH-6 10-15 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	39.	1
Benzo(k)fluoranthene	ND		ug/kg	120	37.	1
Chrysene	ND		ug/kg	120	38.	1
Acenaphthylene	ND		ug/kg	160	36.	1
Anthracene	ND		ug/kg	120	32.	1
Benzo(ghi)perylene	ND		ug/kg	160	40.	1
Fluorene	540		ug/kg	200	56.	1
Phenanthrene	970		ug/kg	120	38.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	38.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	43.	1
Pyrene	330		ug/kg	120	38.	1
Biphenyl	ND		ug/kg	440	64.	1
4-Chloroaniline	ND		ug/kg	200	52.	1
2-Nitroaniline	ND		ug/kg	200	55.	1
3-Nitroaniline	ND		ug/kg	200	54.	1
4-Nitroaniline	ND		ug/kg	200	53.	1
Dibenzofuran	ND		ug/kg	200	65.	1
2-Methylnaphthalene	4000		ug/kg	230	62.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	60.	1
Acetophenone	1100		ug/kg	200	60.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	200	56.	1
2-Chlorophenol	ND		ug/kg	200	59.	1
2,4-Dichlorophenol	ND		ug/kg	180	63.	1
2,4-Dimethylphenol	ND		ug/kg	200	58.	1
2-Nitrophenol	ND		ug/kg	420	61.	1
4-Nitrophenol	ND		ug/kg	270	63.	1
2,4-Dinitrophenol	ND		ug/kg	940	270	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	71.	1
Pentachlorophenol	ND		ug/kg	160	42.	1
Phenol	ND		ug/kg	200	58.	1
2-Methylphenol	ND		ug/kg	200	63.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	64.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	63.	1
Benzoic Acid	ND		ug/kg	630	200	1
Benzyl Alcohol	ND		ug/kg	200	60.	1
Carbazole	ND		ug/kg	200	42.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-09	Date Collected:	03/26/13 14:00
Client ID:	BH-6 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	77		25-120
Phenol-d6	74		10-120
Nitrobenzene-d5	69		23-120
2-Fluorobiphenyl	87		30-120
2,4,6-Tribromophenol	88		0-136
4-Terphenyl-d14	57		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-10	Date Collected:	03/27/13 08:30
Client ID:	BH-10 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	03/28/13 08:47
Analytical Date:	03/29/13 14:36		
Analyst:	JB		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	41.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	66.	1
Hexachlorobenzene	ND		ug/kg	120	37.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	56.	1
2-Chloronaphthalene	ND		ug/kg	200	66.	1
1,2-Dichlorobenzene	ND		ug/kg	200	66.	1
1,3-Dichlorobenzene	ND		ug/kg	200	63.	1
1,4-Dichlorobenzene	ND		ug/kg	200	61.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	53.	1
2,4-Dinitrotoluene	ND		ug/kg	200	43.	1
2,6-Dinitrotoluene	ND		ug/kg	200	51.	1
Fluoranthene	ND		ug/kg	120	37.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	61.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	46.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	71.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	61.	1
Hexachlorobutadiene	ND		ug/kg	200	57.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	130	1
Hexachloroethane	ND		ug/kg	160	36.	1
Isophorone	ND		ug/kg	180	53.	1
Naphthalene	ND		ug/kg	200	67.	1
Nitrobenzene	ND		ug/kg	180	48.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	42.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	60.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	53.	1
Butyl benzyl phthalate	ND		ug/kg	200	39.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	49.	1
Diethyl phthalate	ND		ug/kg	200	42.	1
Dimethyl phthalate	ND		ug/kg	200	51.	1
Benzo(a)anthracene	ND		ug/kg	120	39.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-10 Date Collected: 03/27/13 08:30

Client ID: BH-10 10-15 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	41.	1
Benzo(k)fluoranthene	ND		ug/kg	120	38.	1
Chrysene	ND		ug/kg	120	39.	1
Acenaphthylene	ND		ug/kg	160	38.	1
Anthracene	ND		ug/kg	120	33.	1
Benzo(ghi)perylene	ND		ug/kg	160	42.	1
Fluorene	ND		ug/kg	200	58.	1
Phenanthrene	ND		ug/kg	120	39.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	39.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	45.	1
Pyrene	ND		ug/kg	120	39.	1
Biphenyl	ND		ug/kg	460	66.	1
4-Chloroaniline	ND		ug/kg	200	53.	1
2-Nitroaniline	ND		ug/kg	200	57.	1
3-Nitroaniline	ND		ug/kg	200	55.	1
4-Nitroaniline	ND		ug/kg	200	54.	1
Dibenzofuran	ND		ug/kg	200	67.	1
2-Methylnaphthalene	ND		ug/kg	240	64.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	62.	1
Acetophenone	ND		ug/kg	200	62.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	58.	1
2-Chlorophenol	ND		ug/kg	200	61.	1
2,4-Dichlorophenol	ND		ug/kg	180	65.	1
2,4-Dimethylphenol	ND		ug/kg	200	60.	1
2-Nitrophenol	ND		ug/kg	430	63.	1
4-Nitrophenol	ND		ug/kg	280	65.	1
2,4-Dinitrophenol	ND		ug/kg	960	270	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	74.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	59.	1
2-Methylphenol	ND		ug/kg	200	65.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	66.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	65.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	ND		ug/kg	200	43.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-10	Date Collected:	03/27/13 08:30
Client ID:	BH-10 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	74		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	81		30-120
2,4,6-Tribromophenol	89		0-136
4-Terphenyl-d14	70		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-11	Date Collected:	03/27/13 09:00
Client ID:	BH-11 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	03/28/13 08:47
Analytical Date:	03/29/13 15:02		
Analyst:	JB		
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	40.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	64.	1
Hexachlorobenzene	ND		ug/kg	120	37.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	55.	1
2-Chloronaphthalene	ND		ug/kg	200	64.	1
1,2-Dichlorobenzene	ND		ug/kg	200	65.	1
1,3-Dichlorobenzene	ND		ug/kg	200	62.	1
1,4-Dichlorobenzene	ND		ug/kg	200	60.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	52.	1
2,4-Dinitrotoluene	ND		ug/kg	200	42.	1
2,6-Dinitrotoluene	ND		ug/kg	200	50.	1
Fluoranthene	ND		ug/kg	120	36.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	60.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	45.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	69.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	210	60.	1
Hexachlorobutadiene	ND		ug/kg	200	56.	1
Hexachlorocyclopentadiene	ND		ug/kg	560	130	1
Hexachloroethane	ND		ug/kg	160	36.	1
Isophorone	ND		ug/kg	180	52.	1
Naphthalene	ND		ug/kg	200	65.	1
Nitrobenzene	ND		ug/kg	180	47.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	41.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	59.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	52.	1
Butyl benzyl phthalate	ND		ug/kg	200	38.	1
Di-n-butylphthalate	ND		ug/kg	200	38.	1
Di-n-octylphthalate	ND		ug/kg	200	48.	1
Diethyl phthalate	ND		ug/kg	200	42.	1
Dimethyl phthalate	ND		ug/kg	200	50.	1
Benzo(a)anthracene	ND		ug/kg	120	38.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-11 Date Collected: 03/27/13 09:00

Client ID: BH-11 10-15 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	160	48.	1
Benzo(b)fluoranthene	ND		ug/kg	120	40.	1
Benzo(k)fluoranthene	ND		ug/kg	120	38.	1
Chrysene	ND		ug/kg	120	39.	1
Acenaphthylene	ND		ug/kg	160	37.	1
Anthracene	ND		ug/kg	120	33.	1
Benzo(ghi)perylene	ND		ug/kg	160	41.	1
Fluorene	ND		ug/kg	200	56.	1
Phenanthrene	ND		ug/kg	120	38.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	38.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	44.	1
Pyrene	ND		ug/kg	120	38.	1
Biphenyl	ND		ug/kg	450	65.	1
4-Chloroaniline	ND		ug/kg	200	52.	1
2-Nitroaniline	ND		ug/kg	200	56.	1
3-Nitroaniline	ND		ug/kg	200	54.	1
4-Nitroaniline	ND		ug/kg	200	53.	1
Dibenzofuran	ND		ug/kg	200	66.	1
2-Methylnaphthalene	ND		ug/kg	240	63.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	61.	1
Acetophenone	ND		ug/kg	200	61.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	37.	1
P-Chloro-M-Cresol	ND		ug/kg	200	57.	1
2-Chlorophenol	ND		ug/kg	200	59.	1
2,4-Dichlorophenol	ND		ug/kg	180	64.	1
2,4-Dimethylphenol	ND		ug/kg	200	59.	1
2-Nitrophenol	ND		ug/kg	420	61.	1
4-Nitrophenol	ND		ug/kg	280	64.	1
2,4-Dinitrophenol	ND		ug/kg	940	270	1
4,6-Dinitro-o-cresol	ND		ug/kg	510	72.	1
Pentachlorophenol	ND		ug/kg	160	42.	1
Phenol	ND		ug/kg	200	58.	1
2-Methylphenol	ND		ug/kg	200	63.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	280	65.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	64.	1
Benzoic Acid	ND		ug/kg	640	200	1
Benzyl Alcohol	ND		ug/kg	200	61.	1
Carbazole	ND		ug/kg	200	42.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-11	Date Collected:	03/27/13 09:00
Client ID:	BH-11 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	76		25-120
Phenol-d6	73		10-120
Nitrobenzene-d5	68		23-120
2-Fluorobiphenyl	82		30-120
2,4,6-Tribromophenol	89		0-136
4-Terphenyl-d14	82		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-12	Date Collected:	03/27/13 09:30
Client ID:	BH-13 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	03/28/13 08:47
Analytical Date:	03/29/13 15:29		
Analyst:	JB		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	42.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	66.	1
Hexachlorobenzene	ND		ug/kg	120	38.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	56.	1
2-Chloronaphthalene	ND		ug/kg	200	66.	1
1,2-Dichlorobenzene	ND		ug/kg	200	66.	1
1,3-Dichlorobenzene	ND		ug/kg	200	64.	1
1,4-Dichlorobenzene	ND		ug/kg	200	61.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	44.	1
2,6-Dinitrotoluene	ND		ug/kg	200	52.	1
Fluoranthene	ND		ug/kg	120	37.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	61.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	46.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	71.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	61.	1
Hexachlorobutadiene	ND		ug/kg	200	57.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	130	1
Hexachloroethane	ND		ug/kg	160	37.	1
Isophorone	ND		ug/kg	180	54.	1
Naphthalene	ND		ug/kg	200	67.	1
Nitrobenzene	ND		ug/kg	180	48.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	42.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	60.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	53.	1
Butyl benzyl phthalate	ND		ug/kg	200	39.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	50.	1
Diethyl phthalate	ND		ug/kg	200	43.	1
Dimethyl phthalate	ND		ug/kg	200	51.	1
Benzo(a)anthracene	ND		ug/kg	120	39.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-12 Date Collected: 03/27/13 09:30

Client ID: BH-13 10-15 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	160	49.	1
Benzo(b)fluoranthene	ND		ug/kg	120	41.	1
Benzo(k)fluoranthene	ND		ug/kg	120	38.	1
Chrysene	ND		ug/kg	120	40.	1
Acenaphthylene	ND		ug/kg	160	38.	1
Anthracene	ND		ug/kg	120	34.	1
Benzo(ghi)perylene	ND		ug/kg	160	42.	1
Fluorene	ND		ug/kg	200	58.	1
Phenanthrene	ND		ug/kg	120	39.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	39.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	45.	1
Pyrene	ND		ug/kg	120	39.	1
Biphenyl	ND		ug/kg	460	66.	1
4-Chloroaniline	ND		ug/kg	200	53.	1
2-Nitroaniline	ND		ug/kg	200	57.	1
3-Nitroaniline	ND		ug/kg	200	56.	1
4-Nitroaniline	ND		ug/kg	200	54.	1
Dibenzofuran	ND		ug/kg	200	67.	1
2-Methylnaphthalene	ND		ug/kg	240	64.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	62.	1
Acetophenone	ND		ug/kg	200	62.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	58.	1
2-Chlorophenol	ND		ug/kg	200	61.	1
2,4-Dichlorophenol	ND		ug/kg	180	65.	1
2,4-Dimethylphenol	ND		ug/kg	200	60.	1
2-Nitrophenol	ND		ug/kg	440	63.	1
4-Nitrophenol	ND		ug/kg	280	65.	1
2,4-Dinitrophenol	ND		ug/kg	970	280	1
4,6-Dinitro-o-cresol	ND		ug/kg	520	74.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	60.	1
2-Methylphenol	ND		ug/kg	200	65.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	66.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	65.	1
Benzoic Acid	ND		ug/kg	650	200	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	ND		ug/kg	200	43.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-12	Date Collected:	03/27/13 09:30
Client ID:	BH-13 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	68		25-120
Phenol-d6	66		10-120
Nitrobenzene-d5	59		23-120
2-Fluorobiphenyl	73		30-120
2,4,6-Tribromophenol	84		0-136
4-Terphenyl-d14	73		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-13	Date Collected:	03/27/13 10:30
Client ID:	BH-14 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	03/28/13 09:42
Analytical Date:	03/29/13 15:56		
Analyst:	JB		
Percent Solids:	78%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	170	44.	1
1,2,4-Trichlorobenzene	ND		ug/kg	210	69.	1
Hexachlorobenzene	ND		ug/kg	130	39.	1
Bis(2-chloroethyl)ether	ND		ug/kg	190	59.	1
2-Chloronaphthalene	ND		ug/kg	210	69.	1
1,2-Dichlorobenzene	ND		ug/kg	210	69.	1
1,3-Dichlorobenzene	ND		ug/kg	210	67.	1
1,4-Dichlorobenzene	ND		ug/kg	210	64.	1
3,3'-Dichlorobenzidine	ND		ug/kg	210	56.	1
2,4-Dinitrotoluene	ND		ug/kg	210	46.	1
2,6-Dinitrotoluene	ND		ug/kg	210	54.	1
Fluoranthene	ND		ug/kg	130	39.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	210	64.	1
4-Bromophenyl phenyl ether	ND		ug/kg	210	49.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	250	74.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	230	64.	1
Hexachlorobutadiene	ND		ug/kg	210	60.	1
Hexachlorocyclopentadiene	ND		ug/kg	610	140	1
Hexachloroethane	ND		ug/kg	170	38.	1
Isophorone	ND		ug/kg	190	56.	1
Naphthalene	ND		ug/kg	210	70.	1
Nitrobenzene	ND		ug/kg	190	50.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	170	44.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	210	63.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	210	55.	1
Butyl benzyl phthalate	ND		ug/kg	210	41.	1
Di-n-butylphthalate	ND		ug/kg	210	41.	1
Di-n-octylphthalate	ND		ug/kg	210	52.	1
Diethyl phthalate	ND		ug/kg	210	45.	1
Dimethyl phthalate	ND		ug/kg	210	54.	1
Benzo(a)anthracene	ND		ug/kg	130	41.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-13 Date Collected: 03/27/13 10:30

Client ID: BH-14 10-15 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	170	52.	1
Benzo(b)fluoranthene	ND		ug/kg	130	43.	1
Benzo(k)fluoranthene	ND		ug/kg	130	40.	1
Chrysene	ND		ug/kg	130	42.	1
Acenaphthylene	ND		ug/kg	170	40.	1
Anthracene	170		ug/kg	130	35.	1
Benzo(ghi)perylene	ND		ug/kg	170	44.	1
Fluorene	ND		ug/kg	210	61.	1
Phenanthrene	1600		ug/kg	130	41.	1
Dibenzo(a,h)anthracene	ND		ug/kg	130	41.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	170	47.	1
Pyrene	290		ug/kg	130	41.	1
Biphenyl	400	J	ug/kg	480	70.	1
4-Chloroaniline	ND		ug/kg	210	56.	1
2-Nitroaniline	ND		ug/kg	210	60.	1
3-Nitroaniline	ND		ug/kg	210	58.	1
4-Nitroaniline	ND		ug/kg	210	57.	1
Dibenzofuran	ND		ug/kg	210	70.	1
2-Methylnaphthalene	6500		ug/kg	250	68.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	210	66.	1
Acetophenone	ND		ug/kg	210	66.	1
2,4,6-Trichlorophenol	ND		ug/kg	130	40.	1
P-Chloro-M-Cresol	ND		ug/kg	210	61.	1
2-Chlorophenol	ND		ug/kg	210	64.	1
2,4-Dichlorophenol	ND		ug/kg	190	68.	1
2,4-Dimethylphenol	ND		ug/kg	210	63.	1
2-Nitrophenol	ND		ug/kg	460	66.	1
4-Nitrophenol	ND		ug/kg	300	68.	1
2,4-Dinitrophenol	ND		ug/kg	1000	290	1
4,6-Dinitro-o-cresol	ND		ug/kg	550	77.	1
Pentachlorophenol	ND		ug/kg	170	45.	1
Phenol	ND		ug/kg	210	62.	1
2-Methylphenol	ND		ug/kg	210	68.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	300	69.	1
2,4,5-Trichlorophenol	ND		ug/kg	210	68.	1
Benzoic Acid	ND		ug/kg	680	210	1
Benzyl Alcohol	ND		ug/kg	210	65.	1
Carbazole	ND		ug/kg	210	45.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-13	Date Collected:	03/27/13 10:30
Client ID:	BH-14 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	74		25-120
Phenol-d6	68		10-120
Nitrobenzene-d5	63		23-120
2-Fluorobiphenyl	89		30-120
2,4,6-Tribromophenol	90		0-136
4-Terphenyl-d14	59		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-14	Date Collected:	03/27/13 11:00
Client ID:	BH-8 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8270D	Extraction Date:	03/28/13 09:42
Analytical Date:	03/29/13 16:22		
Analyst:	JB		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Acenaphthene	ND		ug/kg	160	42.	1
1,2,4-Trichlorobenzene	ND		ug/kg	200	66.	1
Hexachlorobenzene	ND		ug/kg	120	38.	1
Bis(2-chloroethyl)ether	ND		ug/kg	180	57.	1
2-Chloronaphthalene	ND		ug/kg	200	66.	1
1,2-Dichlorobenzene	ND		ug/kg	200	66.	1
1,3-Dichlorobenzene	ND		ug/kg	200	64.	1
1,4-Dichlorobenzene	ND		ug/kg	200	62.	1
3,3'-Dichlorobenzidine	ND		ug/kg	200	54.	1
2,4-Dinitrotoluene	ND		ug/kg	200	44.	1
2,6-Dinitrotoluene	ND		ug/kg	200	52.	1
Fluoranthene	ND		ug/kg	120	37.	1
4-Chlorophenyl phenyl ether	ND		ug/kg	200	62.	1
4-Bromophenyl phenyl ether	ND		ug/kg	200	47.	1
Bis(2-chloroisopropyl)ether	ND		ug/kg	240	71.	1
Bis(2-chloroethoxy)methane	ND		ug/kg	220	61.	1
Hexachlorobutadiene	ND		ug/kg	200	57.	1
Hexachlorocyclopentadiene	ND		ug/kg	580	130	1
Hexachloroethane	ND		ug/kg	160	37.	1
Isophorone	ND		ug/kg	180	54.	1
Naphthalene	ND		ug/kg	200	67.	1
Nitrobenzene	ND		ug/kg	180	48.	1
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	160	42.	1
n-Nitrosodi-n-propylamine	ND		ug/kg	200	60.	1
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	200	53.	1
Butyl benzyl phthalate	ND		ug/kg	200	40.	1
Di-n-butylphthalate	ND		ug/kg	200	39.	1
Di-n-octylphthalate	ND		ug/kg	200	50.	1
Diethyl phthalate	ND		ug/kg	200	43.	1
Dimethyl phthalate	ND		ug/kg	200	52.	1
Benzo(a)anthracene	ND		ug/kg	120	40.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-14 Date Collected: 03/27/13 11:00

Client ID: BH-8 10-15 Date Received: 03/27/13

Sample Location: STATEN ISLAND Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzo(a)pyrene	ND		ug/kg	160	50.	1
Benzo(b)fluoranthene	ND		ug/kg	120	41.	1
Benzo(k)fluoranthene	ND		ug/kg	120	39.	1
Chrysene	ND		ug/kg	120	40.	1
Acenaphthylene	ND		ug/kg	160	38.	1
Anthracene	ND		ug/kg	120	34.	1
Benzo(ghi)perylene	ND		ug/kg	160	42.	1
Fluorene	ND		ug/kg	200	58.	1
Phenanthrene	ND		ug/kg	120	40.	1
Dibenzo(a,h)anthracene	ND		ug/kg	120	39.	1
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	160	45.	1
Pyrene	ND		ug/kg	120	39.	1
Biphenyl	ND		ug/kg	460	67.	1
4-Chloroaniline	ND		ug/kg	200	54.	1
2-Nitroaniline	ND		ug/kg	200	57.	1
3-Nitroaniline	ND		ug/kg	200	56.	1
4-Nitroaniline	ND		ug/kg	200	55.	1
Dibenzofuran	ND		ug/kg	200	68.	1
2-Methylnaphthalene	ND		ug/kg	240	65.	1
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	200	63.	1
Acetophenone	ND		ug/kg	200	63.	1
2,4,6-Trichlorophenol	ND		ug/kg	120	38.	1
P-Chloro-M-Cresol	ND		ug/kg	200	59.	1
2-Chlorophenol	ND		ug/kg	200	61.	1
2,4-Dichlorophenol	ND		ug/kg	180	66.	1
2,4-Dimethylphenol	ND		ug/kg	200	60.	1
2-Nitrophenol	ND		ug/kg	440	63.	1
4-Nitrophenol	ND		ug/kg	280	66.	1
2,4-Dinitrophenol	ND		ug/kg	970	280	1
4,6-Dinitro-o-cresol	ND		ug/kg	530	74.	1
Pentachlorophenol	ND		ug/kg	160	43.	1
Phenol	ND		ug/kg	200	60.	1
2-Methylphenol	ND		ug/kg	200	65.	1
3-Methylphenol/4-Methylphenol	ND		ug/kg	290	66.	1
2,4,5-Trichlorophenol	ND		ug/kg	200	66.	1
Benzoic Acid	ND		ug/kg	660	200	1
Benzyl Alcohol	ND		ug/kg	200	62.	1
Carbazole	ND		ug/kg	200	44.	1

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-14	Date Collected:	03/27/13 11:00
Client ID:	BH-8 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor

Semivolatile Organics by GC/MS - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	84		25-120
Phenol-d6	79		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	80		30-120
2,4,6-Tribromophenol	87		0-136
4-Terphenyl-d14	64		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 03/29/13 07:58
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 03/28/13 08:47

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02-14 Batch: WG597996-1					
Acenaphthene	ND		ug/kg	130	34.
1,2,4-Trichlorobenzene	ND		ug/kg	160	54.
Hexachlorobenzene	ND		ug/kg	99	31.
Bis(2-chloroethyl)ether	ND		ug/kg	150	46.
2-Chloronaphthalene	ND		ug/kg	160	54.
1,2-Dichlorobenzene	ND		ug/kg	160	54.
1,3-Dichlorobenzene	ND		ug/kg	160	52.
1,4-Dichlorobenzene	ND		ug/kg	160	50.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	36.
2,6-Dinitrotoluene	ND		ug/kg	160	42.
Fluoranthene	ND		ug/kg	99	30.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	50.
4-Bromophenyl phenyl ether	ND		ug/kg	160	38.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	58.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	50.
Hexachlorobutadiene	ND		ug/kg	160	46.
Hexachlorocyclopentadiene	ND		ug/kg	470	110
Hexachloroethane	ND		ug/kg	130	30.
Isophorone	ND		ug/kg	150	44.
Naphthalene	ND		ug/kg	160	55.
Nitrobenzene	ND		ug/kg	150	39.
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	130	35.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	49.
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	160	43.
Butyl benzyl phthalate	ND		ug/kg	160	32.
Di-n-butylphthalate	ND		ug/kg	160	32.
Di-n-octylphthalate	ND		ug/kg	160	41.
Diethyl phthalate	ND		ug/kg	160	35.
Dimethyl phthalate	ND		ug/kg	160	42.
Benzo(a)anthracene	ND		ug/kg	99	32.

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 03/29/13 07:58
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 03/28/13 08:47

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02-14 Batch: WG597996-1					
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	33.
Benzo(k)fluoranthene	ND		ug/kg	99	32.
Chrysene	ND		ug/kg	99	32.
Acenaphthylene	ND		ug/kg	130	31.
Anthracene	ND		ug/kg	99	27.
Benzo(ghi)perylene	ND		ug/kg	130	34.
Fluorene	ND		ug/kg	160	47.
Phenanthrene	ND		ug/kg	99	32.
Dibenzo(a,h)anthracene	ND		ug/kg	99	32.
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	130	37.
Pyrene	ND		ug/kg	99	32.
Biphenyl	ND		ug/kg	380	54.
4-Chloroaniline	ND		ug/kg	160	44.
2-Nitroaniline	ND		ug/kg	160	46.
3-Nitroaniline	ND		ug/kg	160	46.
4-Nitroaniline	ND		ug/kg	160	44.
Dibenzofuran	ND		ug/kg	160	55.
2-Methylnaphthalene	ND		ug/kg	200	53.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	51.
Acetophenone	ND		ug/kg	160	51.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
P-Chloro-M-Cresol	ND		ug/kg	160	48.
2-Chlorophenol	ND		ug/kg	160	50.
2,4-Dichlorophenol	ND		ug/kg	150	54.
2,4-Dimethylphenol	ND		ug/kg	160	49.
2-Nitrophenol	ND		ug/kg	360	52.
4-Nitrophenol	ND		ug/kg	230	54.
2,4-Dinitrophenol	ND		ug/kg	790	220
4,6-Dinitro-o-cresol	ND		ug/kg	430	60.
Pentachlorophenol	ND		ug/kg	130	35.

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 03/29/13 07:58
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 03/28/13 08:47

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 02-14 Batch: WG597996-1					
Phenol	ND		ug/kg	160	49.
2-Methylphenol	ND		ug/kg	160	53.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	54.
2,4,5-Trichlorophenol	ND		ug/kg	160	54.
Benzoic Acid	ND		ug/kg	540	170
Benzyl Alcohol	ND		ug/kg	160	51.
Carbazole	ND		ug/kg	160	36.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	69		25-120
Phenol-d6	66		10-120
Nitrobenzene-d5	62		23-120
2-Fluorobiphenyl	76		30-120
2,4,6-Tribromophenol	78		0-136
4-Terphenyl-d14	78		18-120

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/02/13 10:35
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 04/01/13 12:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG598684-1					
Acenaphthene	ND		ug/kg	130	34.
1,2,4-Trichlorobenzene	ND		ug/kg	160	54.
Hexachlorobenzene	ND		ug/kg	99	31.
Bis(2-chloroethyl)ether	ND		ug/kg	150	46.
2-Chloronaphthalene	ND		ug/kg	160	54.
1,2-Dichlorobenzene	ND		ug/kg	160	54.
1,3-Dichlorobenzene	ND		ug/kg	160	52.
1,4-Dichlorobenzene	ND		ug/kg	160	50.
3,3'-Dichlorobenzidine	ND		ug/kg	160	44.
2,4-Dinitrotoluene	ND		ug/kg	160	36.
2,6-Dinitrotoluene	ND		ug/kg	160	42.
Fluoranthene	ND		ug/kg	99	30.
4-Chlorophenyl phenyl ether	ND		ug/kg	160	50.
4-Bromophenyl phenyl ether	ND		ug/kg	160	38.
Bis(2-chloroisopropyl)ether	ND		ug/kg	200	58.
Bis(2-chloroethoxy)methane	ND		ug/kg	180	50.
Hexachlorobutadiene	ND		ug/kg	160	46.
Hexachlorocyclopentadiene	ND		ug/kg	470	110
Hexachloroethane	ND		ug/kg	130	30.
Isophorone	ND		ug/kg	150	44.
Naphthalene	ND		ug/kg	160	55.
Nitrobenzene	ND		ug/kg	150	39.
NitrosoDiPhenylAmine(NDPA)/DPA	ND		ug/kg	130	35.
n-Nitrosodi-n-propylamine	ND		ug/kg	160	49.
Bis(2-Ethylhexyl)phthalate	ND		ug/kg	160	43.
Butyl benzyl phthalate	ND		ug/kg	160	32.
Di-n-butylphthalate	ND		ug/kg	160	32.
Di-n-octylphthalate	ND		ug/kg	160	41.
Diethyl phthalate	ND		ug/kg	160	35.
Dimethyl phthalate	ND		ug/kg	160	42.
Benzo(a)anthracene	ND		ug/kg	99	32.

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/02/13 10:35
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 04/01/13 12:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG598684-1					
Benzo(a)pyrene	ND		ug/kg	130	40.
Benzo(b)fluoranthene	ND		ug/kg	99	33.
Benzo(k)fluoranthene	ND		ug/kg	99	32.
Chrysene	ND		ug/kg	99	32.
Acenaphthylene	ND		ug/kg	130	31.
Anthracene	ND		ug/kg	99	27.
Benzo(ghi)perylene	ND		ug/kg	130	34.
Fluorene	ND		ug/kg	160	47.
Phenanthrene	ND		ug/kg	99	32.
Dibenzo(a,h)anthracene	ND		ug/kg	99	32.
Indeno(1,2,3-cd)Pyrene	ND		ug/kg	130	37.
Pyrene	ND		ug/kg	99	32.
Biphenyl	ND		ug/kg	380	54.
4-Chloroaniline	ND		ug/kg	160	44.
2-Nitroaniline	ND		ug/kg	160	46.
3-Nitroaniline	ND		ug/kg	160	46.
4-Nitroaniline	ND		ug/kg	160	44.
Dibenzofuran	ND		ug/kg	160	55.
2-Methylnaphthalene	ND		ug/kg	200	53.
1,2,4,5-Tetrachlorobenzene	ND		ug/kg	160	51.
Acetophenone	ND		ug/kg	160	51.
2,4,6-Trichlorophenol	ND		ug/kg	99	31.
P-Chloro-M-Cresol	ND		ug/kg	160	48.
2-Chlorophenol	ND		ug/kg	160	50.
2,4-Dichlorophenol	ND		ug/kg	150	54.
2,4-Dimethylphenol	ND		ug/kg	160	49.
2-Nitrophenol	ND		ug/kg	360	52.
4-Nitrophenol	ND		ug/kg	230	54.
2,4-Dinitrophenol	ND		ug/kg	790	220
4,6-Dinitro-o-cresol	ND		ug/kg	430	60.
Pentachlorophenol	ND		ug/kg	130	35.

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 04/02/13 10:35
Analyst: JB

Extraction Method: EPA 3546
Extraction Date: 04/01/13 12:06

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG598684-1					
Phenol	ND		ug/kg	160	49.
2-Methylphenol	ND		ug/kg	160	53.
3-Methylphenol/4-Methylphenol	ND		ug/kg	240	54.
2,4,5-Trichlorophenol	ND		ug/kg	160	54.
Benzoic Acid	ND		ug/kg	540	170
Benzyl Alcohol	ND		ug/kg	160	51.
Carbazole	ND		ug/kg	160	36.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	80		25-120
Phenol-d6	81		10-120
Nitrobenzene-d5	76		23-120
2-Fluorobiphenyl	65		30-120
2,4,6-Tribromophenol	69		0-136
4-Terphenyl-d14	83		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-14 Batch: WG597996-2 WG597996-3								
Acenaphthene	60		72		31-137	18		50
1,2,4-Trichlorobenzene	63		76		38-107	19		50
Hexachlorobenzene	76		89		40-140	16		50
Bis(2-chloroethyl)ether	55		67		40-140	20		50
2-Chloronaphthalene	66		76		40-140	14		50
1,2-Dichlorobenzene	58		72		40-140	22		50
1,3-Dichlorobenzene	60		74		40-140	21		50
1,4-Dichlorobenzene	58		70		28-104	19		50
3,3'-Dichlorobenzidine	**36**	Q	43		40-140	18		50
2,4-Dinitrotoluene	73		82		28-89	12		50
2,6-Dinitrotoluene	79		85		40-140	7		50
Fluoranthene	76		89		40-140	16		50
4-Chlorophenyl phenyl ether	71		80		40-140	12		50
4-Bromophenyl phenyl ether	78		89		40-140	13		50
Bis(2-chloroisopropyl)ether	47		56		40-140	17		50
Bis(2-chloroethoxy)methane	59		67		40-117	13		50
Hexachlorobutadiene	67		80		40-140	18		50
Hexachlorocyclopentadiene	46		51		40-140	10		50
Hexachloroethane	56		69		40-140	21		50
Isophorone	56		65		40-140	15		50
Naphthalene	60		70		40-140	15		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-14 Batch: WG597996-2 WG597996-3								
Nitrobenzene	54		63		40-140	15		50
NitrosoDiPhenylAmine(NDPA)/DPA	72		82			13		50
n-Nitrosodi-n-propylamine	55		63		32-121	14		50
Bis(2-Ethylhexyl)phthalate	72		78		40-140	8		50
Butyl benzyl phthalate	74		83		40-140	11		50
Di-n-butylphthalate	72		84		40-140	15		50
Di-n-octylphthalate	66		80		40-140	19		50
Diethyl phthalate	75		82		40-140	9		50
Dimethyl phthalate	70		81		40-140	15		50
Benzo(a)anthracene	74		85		40-140	14		50
Benzo(a)pyrene	72		83		40-140	14		50
Benzo(b)fluoranthene	75		85		40-140	13		50
Benzo(k)fluoranthene	74		87		40-140	16		50
Chrysene	73		84		40-140	14		50
Acenaphthylene	68		74		40-140	8		50
Anthracene	71		82		40-140	14		50
Benzo(ghi)perylene	60		80		40-140	29		50
Fluorene	68		78		40-140	14		50
Phenanthrene	73		82		40-140	12		50
Dibenzo(a,h)anthracene	66		84		40-140	24		50
Indeno(1,2,3-cd)Pyrene	60		78		40-140	26		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-14 Batch: WG597996-2 WG597996-3								
Pyrene	74		87		35-142	16		50
Biphenyl	61		73			18		50
4-Chloroaniline	**26**	Q	**29**	Q	40-140	11		50
2-Nitroaniline	74		78		47-134	5		50
3-Nitroaniline	40		48		26-129	18		50
4-Nitroaniline	72		78		41-125	8		50
Dibenzofuran	64		70		40-140	9		50
2-Methylnaphthalene	62		69		40-140	11		50
1,2,4,5-Tetrachlorobenzene	66		75		40-117	13		50
Acetophenone	61		73		14-144	18		50
2,4,6-Trichlorophenol	79		84		30-130	6		50
P-Chloro-M-Cresol	72		82		26-103	13		50
2-Chlorophenol	65		77		25-102	17		50
2,4-Dichlorophenol	72		80		30-130	11		50
2,4-Dimethylphenol	63		74		30-130	16		50
2-Nitrophenol	65		77		30-130	17		50
4-Nitrophenol	83		92		11-114	10		50
2,4-Dinitrophenol	78		88		4-130	12		50
4,6-Dinitro-o-cresol	79		90		10-130	13		50
Pentachlorophenol	78		85		17-109	9		50
Phenol	57		67		26-90	16		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-14 Batch: WG597996-2 WG597996-3								
2-Methylphenol	62		71		30-130.	14		50
3-Methylphenol/4-Methylphenol	63		74		30-130	16		50
2,4,5-Trichlorophenol	83		85		30-130	2		50
Benzoic Acid	38		43			12		50
Benzyl Alcohol	55		68		40-140	21		50
Carbazole	76		87		54-128	13		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	74		84		25-120
Phenol-d6	73		83		10-120
Nitrobenzene-d5	65		77		23-120
2-Fluorobiphenyl	79		82		30-120
2,4,6-Tribromophenol	93		104		0-136
4-Terphenyl-d14	82		89		18-120

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG598684-2 WG598684-3								
Acenaphthene	70		69		31-137	1		50
1,2,4-Trichlorobenzene	56		54		38-107	4		50
Hexachlorobenzene	71		72		40-140	1		50
Bis(2-chloroethyl)ether	64		58		40-140	10		50
2-Chloronaphthalene	64		66		40-140	3		50
1,2-Dichlorobenzene	60		57		40-140	5		50
1,3-Dichlorobenzene	58		56		40-140	4		50
1,4-Dichlorobenzene	58		56		28-104	4		50
3,3'-Dichlorobenzidine	57		58		40-140	2		50
2,4-Dinitrotoluene	78		81		28-89	4		50
2,6-Dinitrotoluene	70		77		40-140	10		50
Fluoranthene	75		78		40-140	4		50
4-Chlorophenyl phenyl ether	71		71		40-140	0		50
4-Bromophenyl phenyl ether	70		72		40-140	3		50
Bis(2-chloroisopropyl)ether	71		66		40-140	7		50
Bis(2-chloroethoxy)methane	70		69		40-117	1		50
Hexachlorobutadiene	58		56		40-140	4		50
Hexachlorocyclopentadiene	52		50		40-140	4		50
Hexachloroethane	65		60		40-140	8		50
Isophorone	68		66		40-140	3		50
Naphthalene	60		59		40-140	2		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG598684-2 WG598684-3								
Nitrobenzene	64		60		40-140	6		50
NitrosoDiPhenylAmine(NDPA)/DPA	73		77			5		50
n-Nitrosodi-n-propylamine	72		69		32-121	4		50
Bis(2-Ethylhexyl)phthalate	92		88		40-140	4		50
Butyl benzyl phthalate	78		88		40-140	12		50
Di-n-butylphthalate	85		84		40-140	1		50
Di-n-octylphthalate	90		91		40-140	1		50
Diethyl phthalate	82		84		40-140	2		50
Dimethyl phthalate	78		78		40-140	0		50
Benzo(a)anthracene	79		76		40-140	4		50
Benzo(a)pyrene	80		75		40-140	6		50
Benzo(b)fluoranthene	80		74		40-140	8		50
Benzo(k)fluoranthene	80		80		40-140	0		50
Chrysene	77		76		40-140	1		50
Acenaphthylene	64		68		40-140	6		50
Anthracene	79		76		40-140	4		50
Benzo(ghi)perylene	77		68		40-140	12		50
Fluorene	73		74		40-140	1		50
Phenanthrene	79		75		40-140	5		50
Dibenzo(a,h)anthracene	78		70		40-140	11		50
Indeno(1,2,3-cd)Pyrene	72		65		40-140	10		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG598684-2 WG598684-3								
Pyrene	73		77		35-142	5		50
Biphenyl	72		70			3		50
4-Chloroaniline	57		59		40-140	3		50
2-Nitroaniline	73		81		47-134	10		50
3-Nitroaniline	49		53		26-129	8		50
4-Nitroaniline	76		84		41-125	10		50
Dibenzofuran	70		71		40-140	1		50
2-Methylnaphthalene	55		57		40-140	4		50
1,2,4,5-Tetrachlorobenzene	67		63		40-117	6		50
Acetophenone	72		69		14-144	4		50
2,4,6-Trichlorophenol	67		70		30-130	4		50
P-Chloro-M-Cresol	76		80		26-103	5		50
2-Chlorophenol	67		64		25-102	5		50
2,4-Dichlorophenol	68		68		30-130	0		50
2,4-Dimethylphenol	72		72		30-130	0		50
2-Nitrophenol	66		63		30-130	5		50
4-Nitrophenol	52		57		11-114	9		50
2,4-Dinitrophenol	40		32		4-130	22		50
4,6-Dinitro-o-cresol	68		71		10-130	4		50
Pentachlorophenol	68		66		17-109	3		50
Phenol	72		69		26-90	4		50

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG598684-2 WG598684-3								
2-Methylphenol	73		70		30-130.	4		50
3-Methylphenol/4-Methylphenol	73		71		30-130	3		50
2,4,5-Trichlorophenol	70		76		30-130	8		50
Benzoic Acid	14		12			15		50
Benzyl Alcohol	72		70		40-140	3		50
Carbazole	78		78		54-128	0		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	78		73		25-120
Phenol-d6	80		76		10-120
Nitrobenzene-d5	75		70		23-120
2-Fluorobiphenyl	68		70		30-120
2,4,6-Tribromophenol	80		76		0-136
4-Terphenyl-d14	76		80		18-120

PCBS

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-01	Date Collected:	03/27/13 11:30
Client ID:	BH-15 10-12	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:23
Analytical Date:	03/29/13 11:50	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	83%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	37.6	7.42	1
Aroclor 1221	ND		ug/kg	37.6	11.3	1
Aroclor 1232	ND		ug/kg	37.6	7.98	1
Aroclor 1242	ND		ug/kg	37.6	7.13	1
Aroclor 1248	ND		ug/kg	37.6	4.54	1
Aroclor 1254	ND		ug/kg	37.6	5.92	1
Aroclor 1260	ND		ug/kg	37.6	6.52	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	115		30-150
Decachlorobiphenyl	104		30-150
2,4,5,6-Tetrachloro-m-xylene	103		30-150
Decachlorobiphenyl	133		30-150

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-02	Date Collected:	03/27/13 12:00
Client ID:	BH 16 10-12	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:23
Analytical Date:	03/29/13 12:03	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	78%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	41.0	8.09	1
Aroclor 1221	ND		ug/kg	41.0	12.4	1
Aroclor 1232	ND		ug/kg	41.0	8.70	1
Aroclor 1242	ND		ug/kg	41.0	7.77	1
Aroclor 1248	ND		ug/kg	41.0	4.96	1
Aroclor 1254	ND		ug/kg	41.0	6.46	1
Aroclor 1260	ND		ug/kg	41.0	7.11	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	86		30-150
Decachlorobiphenyl	105		30-150
2,4,5,6-Tetrachloro-m-xylene	79		30-150
Decachlorobiphenyl	126		30-150

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-03	Date Collected:	03/27/13 12:30
Client ID:	BH 18 10-13	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:23
Analytical Date:	03/29/13 12:16	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	83%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	38.2	7.55	1
Aroclor 1221	ND		ug/kg	38.2	11.5	1
Aroclor 1232	ND		ug/kg	38.2	8.12	1
Aroclor 1242	ND		ug/kg	38.2	7.25	1
Aroclor 1248	ND		ug/kg	38.2	4.62	1
Aroclor 1254	ND		ug/kg	38.2	6.02	1
Aroclor 1260	ND		ug/kg	38.2	6.63	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	100		30-150
Decachlorobiphenyl	103		30-150
2,4,5,6-Tetrachloro-m-xylene	90		30-150
Decachlorobiphenyl	125		30-150

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-04	Date Collected:	03/27/13 13:00
Client ID:	BH 19 10-13	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:23
Analytical Date:	03/29/13 12:30	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	86%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	36.7	7.26	1
Aroclor 1221	ND		ug/kg	36.7	11.1	1
Aroclor 1232	ND		ug/kg	36.7	7.80	1
Aroclor 1242	ND		ug/kg	36.7	6.97	1
Aroclor 1248	ND		ug/kg	36.7	4.44	1
Aroclor 1254	ND		ug/kg	36.7	5.79	1
Aroclor 1260	ND		ug/kg	36.7	6.38	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	116		30-150
Decachlorobiphenyl	106		30-150
2,4,5,6-Tetrachloro-m-xylene	105		30-150
Decachlorobiphenyl	131		30-150

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-05	Date Collected:	03/26/13 12:00
Client ID:	BH-2 10-14	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:23
Analytical Date:	03/29/13 12:43	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	84%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	39.2	7.75	1
Aroclor 1221	ND		ug/kg	39.2	11.8	1
Aroclor 1232	ND		ug/kg	39.2	8.33	1
Aroclor 1242	ND		ug/kg	39.2	7.44	1
Aroclor 1248	ND		ug/kg	39.2	4.74	1
Aroclor 1254	ND		ug/kg	39.2	6.18	1
Aroclor 1260	ND		ug/kg	39.2	6.81	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	102		30-150
Decachlorobiphenyl	134		30-150
2,4,5,6-Tetrachloro-m-xylene	90		30-150
Decachlorobiphenyl	136		30-150

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-06	Date Collected:	03/26/13 13:30
Client ID:	BH-4 15-20	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:23
Analytical Date:	03/29/13 12:56	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	86%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	37.1	7.33	1
Aroclor 1221	ND		ug/kg	37.1	11.2	1
Aroclor 1232	ND		ug/kg	37.1	7.89	1
Aroclor 1242	ND		ug/kg	37.1	7.05	1
Aroclor 1248	ND		ug/kg	37.1	4.49	1
Aroclor 1254	ND		ug/kg	37.1	5.85	1
Aroclor 1260	ND		ug/kg	37.1	6.44	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	116		30-150
Decachlorobiphenyl	121		30-150
2,4,5,6-Tetrachloro-m-xylene	104		30-150
Decachlorobiphenyl	138		30-150

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-07	Date Collected:	03/26/13 16:00
Client ID:	BH-5 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:23
Analytical Date:	03/29/13 13:09	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	83%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	39.9	7.88	1
Aroclor 1221	ND		ug/kg	39.9	12.0	1
Aroclor 1232	ND		ug/kg	39.9	8.48	1
Aroclor 1242	ND		ug/kg	39.9	7.57	1
Aroclor 1248	ND		ug/kg	39.9	4.83	1
Aroclor 1254	ND		ug/kg	39.9	6.29	1
Aroclor 1260	ND		ug/kg	39.9	6.92	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	109		30-150
Decachlorobiphenyl	**171**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	96		30-150
Decachlorobiphenyl	**163**	Q	30-150

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-08	Date Collected:	03/26/13 16:25
Client ID:	BH-5 17-20	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:23
Analytical Date:	03/29/13 13:22	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	87%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	37.0	7.31	1
Aroclor 1221	ND		ug/kg	37.0	11.2	1
Aroclor 1232	ND		ug/kg	37.0	7.86	1
Aroclor 1242	ND		ug/kg	37.0	7.02	1
Aroclor 1248	ND		ug/kg	37.0	4.48	1
Aroclor 1254	ND		ug/kg	37.0	5.83	1
Aroclor 1260	ND		ug/kg	37.0	6.42	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	102		30-150
Decachlorobiphenyl	123		30-150
2,4,5,6-Tetrachloro-m-xylene	91		30-150
Decachlorobiphenyl	144		30-150

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-09	Date Collected:	03/26/13 14:00
Client ID:	BH-6 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:25
Analytical Date:	03/29/13 13:36	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	84%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	38.5	7.60	1
Aroclor 1221	ND		ug/kg	38.5	11.6	1
Aroclor 1232	ND		ug/kg	38.5	8.17	1
Aroclor 1242	ND		ug/kg	38.5	7.30	1
Aroclor 1248	ND		ug/kg	38.5	4.65	1
Aroclor 1254	ND		ug/kg	38.5	6.06	1
Aroclor 1260	ND		ug/kg	38.5	6.68	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	114		30-150
Decachlorobiphenyl	**183**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	100		30-150
Decachlorobiphenyl	**171**	Q	30-150

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-10	Date Collected:	03/27/13 08:30
Client ID:	BH-10 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:25
Analytical Date:	03/29/13 13:49	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	81%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	40.6	8.02	1
Aroclor 1221	ND		ug/kg	40.6	12.2	1
Aroclor 1232	ND		ug/kg	40.6	8.62	1
Aroclor 1242	ND		ug/kg	40.6	7.71	1
Aroclor 1248	ND		ug/kg	40.6	4.91	1
Aroclor 1254	ND		ug/kg	40.6	6.40	1
Aroclor 1260	ND		ug/kg	40.6	7.05	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	119		30-150
Decachlorobiphenyl	125		30-150
2,4,5,6-Tetrachloro-m-xylene	105		30-150
Decachlorobiphenyl	138		30-150

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-11	Date Collected:	03/27/13 09:00
Client ID:	BH-11 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:25
Analytical Date:	03/29/13 14:02	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	83%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	38.7	7.64	1
Aroclor 1221	ND		ug/kg	38.7	11.7	1
Aroclor 1232	ND		ug/kg	38.7	8.21	1
Aroclor 1242	ND		ug/kg	38.7	7.34	1
Aroclor 1248	ND		ug/kg	38.7	4.68	1
Aroclor 1254	ND		ug/kg	38.7	6.10	1
Aroclor 1260	ND		ug/kg	38.7	6.71	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	126		30-150
Decachlorobiphenyl	132		30-150
2,4,5,6-Tetrachloro-m-xylene	114		30-150
Decachlorobiphenyl	**153**	Q	30-150

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-12	Date Collected:	03/27/13 09:30
Client ID:	BH-13 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:25
Analytical Date:	03/29/13 14:15	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	81%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	39.0	7.70	1
Aroclor 1221	ND		ug/kg	39.0	11.8	1
Aroclor 1232	ND		ug/kg	39.0	8.28	1
Aroclor 1242	ND		ug/kg	39.0	7.40	1
Aroclor 1248	ND		ug/kg	39.0	4.71	1
Aroclor 1254	ND		ug/kg	39.0	6.14	1
Aroclor 1260	ND		ug/kg	39.0	6.76	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	103		30-150
Decachlorobiphenyl	119		30-150
2,4,5,6-Tetrachloro-m-xylene	93		30-150
Decachlorobiphenyl	139		30-150

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-13	Date Collected:	03/27/13 10:30
Client ID:	BH-14 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:25
Analytical Date:	03/29/13 14:29	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	78%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	41.0	8.10	1
Aroclor 1221	ND		ug/kg	41.0	12.4	1
Aroclor 1232	ND		ug/kg	41.0	8.71	1
Aroclor 1242	ND		ug/kg	41.0	7.78	1
Aroclor 1248	ND		ug/kg	41.0	4.96	1
Aroclor 1254	ND		ug/kg	41.0	6.46	1
Aroclor 1260	ND		ug/kg	41.0	7.12	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	111		30-150
Decachlorobiphenyl	**173**	Q	30-150
2,4,5,6-Tetrachloro-m-xylene	99		30-150
Decachlorobiphenyl	**169**	Q	30-150

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-14	Date Collected:	03/27/13 11:00
Client ID:	BH-8 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil	Extraction Method:	EPA 3546
Analytical Method:	1,8082A	Extraction Date:	03/28/13 16:25
Analytical Date:	03/29/13 15:35	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	03/29/13
Percent Solids:	81%	Cleanup Method2:	EPA 3660B
		Cleanup Date2:	03/29/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/kg	39.4	7.79	1
Aroclor 1221	ND		ug/kg	39.4	11.9	1
Aroclor 1232	ND		ug/kg	39.4	8.38	1
Aroclor 1242	ND		ug/kg	39.4	7.48	1
Aroclor 1248	ND		ug/kg	39.4	4.77	1
Aroclor 1254	ND		ug/kg	39.4	6.22	1
Aroclor 1260	ND		ug/kg	39.4	6.84	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	110		30-150
Decachlorobiphenyl	126		30-150
2,4,5,6-Tetrachloro-m-xylene	100		30-150
Decachlorobiphenyl	142		30-150

Project Name: ARTHUR KILL PHASE II

Project Number: 190

Lab Number: L1305165

Report Date: 04/02/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8082A
Analytical Date: 03/29/13 14:42
Analyst: KB

Extraction Method: EPA 3546
Extraction Date: 03/28/13 16:23
Cleanup Method1: EPA 3665A
Cleanup Date1: 03/29/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 03/29/13

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-14 Batch: WG598150-1					
Aroclor 1016	ND		ug/kg	32.9	6.50
Aroclor 1221	ND		ug/kg	32.9	9.92
Aroclor 1232	ND		ug/kg	32.9	6.99
Aroclor 1242	ND		ug/kg	32.9	6.24
Aroclor 1248	ND		ug/kg	32.9	3.98
Aroclor 1254	ND		ug/kg	32.9	5.18
Aroclor 1260	ND		ug/kg	32.9	5.71

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	118		30-150
Decachlorobiphenyl	119		30-150
2,4,5,6-Tetrachloro-m-xylene	106		30-150
Decachlorobiphenyl	135		30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: ARTHUR KILL PHASE II

Project Number: 190

Lab Number: L1305165

Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-14 Batch: WG598150-2 WG598150-3								
Aroclor 1016	93		94		40-140	1		50
Aroclor 1260	97		99		40-140	2		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	117		115		30-150
Decachlorobiphenyl	130		125		30-150
2,4,5,6-Tetrachloro-m-xylene	104		102		30-150
Decachlorobiphenyl	145		140		30-150

METALS

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-01	Date Collected:	03/27/13 11:30
Client ID:	BH-15 10-12	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	5.2		mg/kg	0.46	0.14	1	03/28/13 14:42	03/28/13 20:19	EPA 3050B	1,6010C	MG
Barium, Total	11		mg/kg	0.46	0.14	1	03/28/13 14:42	03/28/13 20:19	EPA 3050B	1,6010C	MG
Cadmium, Total	0.10	J	mg/kg	0.46	0.03	1	03/28/13 14:42	03/28/13 20:19	EPA 3050B	1,6010C	MG
Chromium, Total	7.4		mg/kg	0.46	0.09	1	03/28/13 14:42	03/28/13 20:19	EPA 3050B	1,6010C	MG
Lead, Total	3.0		mg/kg	2.3	0.14	1	03/28/13 14:42	03/28/13 20:19	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.09	0.02	1	03/29/13 11:30	03/30/13 17:11	EPA 7471B	1,7471B	AK
Selenium, Total	0.73	J	mg/kg	0.93	0.14	1	03/28/13 14:42	03/28/13 20:19	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.46	0.09	1	03/28/13 14:42	03/28/13 20:19	EPA 3050B	1,6010C	MG

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-02	Date Collected:	03/27/13 12:00
Client ID:	BH 16 10-12	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	78%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	4.2		mg/kg	0.50	0.15	1	03/28/13 14:42	03/28/13 20:39	EPA 3050B	1,6010C	MG
Barium, Total	12		mg/kg	0.50	0.15	1	03/28/13 14:42	03/28/13 20:39	EPA 3050B	1,6010C	MG
Cadmium, Total	ND		mg/kg	0.50	0.03	1	03/28/13 14:42	03/28/13 20:39	EPA 3050B	1,6010C	MG
Chromium, Total	6.2		mg/kg	0.50	0.10	1	03/28/13 14:42	03/28/13 20:39	EPA 3050B	1,6010C	MG
Lead, Total	2.5		mg/kg	2.5	0.15	1	03/28/13 14:42	03/28/13 20:39	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.10	0.02	1	03/29/13 11:30	03/30/13 17:13	EPA 7471B	1,7471B	AK
Selenium, Total	0.42	J	mg/kg	0.99	0.15	1	03/28/13 14:42	03/28/13 20:39	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.50	0.10	1	03/28/13 14:42	03/28/13 20:39	EPA 3050B	1,6010C	MG

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-03	Date Collected:	03/27/13 12:30
Client ID:	BH 18 10-13	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	4.9		mg/kg	0.47	0.14	1	03/28/13 14:42	03/28/13 20:42	EPA 3050B	1,6010C	MG
Barium, Total	8.6		mg/kg	0.47	0.14	1	03/28/13 14:42	03/28/13 20:42	EPA 3050B	1,6010C	MG
Cadmium, Total	ND		mg/kg	0.47	0.03	1	03/28/13 14:42	03/28/13 20:42	EPA 3050B	1,6010C	MG
Chromium, Total	7.8		mg/kg	0.47	0.09	1	03/28/13 14:42	03/28/13 20:42	EPA 3050B	1,6010C	MG
Lead, Total	3.0		mg/kg	2.3	0.14	1	03/28/13 14:42	03/28/13 20:42	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.10	0.02	1	03/29/13 11:30	03/30/13 17:15	EPA 7471B	1,7471B	AK
Selenium, Total	0.41	J	mg/kg	0.94	0.14	1	03/28/13 14:42	03/28/13 20:42	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.47	0.09	1	03/28/13 14:42	03/28/13 20:42	EPA 3050B	1,6010C	MG

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-04	Date Collected:	03/27/13 13:00
Client ID:	BH 19 10-13	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	4.5		mg/kg	0.44	0.13	1	03/28/13 14:42	03/28/13 20:45	EPA 3050B	1,6010C	MG
Barium, Total	8.4		mg/kg	0.44	0.13	1	03/28/13 14:42	03/28/13 20:45	EPA 3050B	1,6010C	MG
Cadmium, Total	ND		mg/kg	0.44	0.03	1	03/28/13 14:42	03/28/13 20:45	EPA 3050B	1,6010C	MG
Chromium, Total	6.2		mg/kg	0.44	0.09	1	03/28/13 14:42	03/28/13 20:45	EPA 3050B	1,6010C	MG
Lead, Total	2.4		mg/kg	2.2	0.13	1	03/28/13 14:42	03/28/13 20:45	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.10	0.02	1	03/29/13 11:30	03/30/13 17:17	EPA 7471B	1,7471B	AK
Selenium, Total	0.60	J	mg/kg	0.88	0.13	1	03/28/13 14:42	03/28/13 20:45	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.44	0.09	1	03/28/13 14:42	03/28/13 20:45	EPA 3050B	1,6010C	MG

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-05	Date Collected:	03/26/13 12:00
Client ID:	BH-2 10-14	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	5.2		mg/kg	0.46	0.14	1	03/28/13 14:42	03/28/13 20:48	EPA 3050B	1,6010C	MG
Barium, Total	15		mg/kg	0.46	0.14	1	03/28/13 14:42	03/28/13 20:48	EPA 3050B	1,6010C	MG
Cadmium, Total	0.05	J	mg/kg	0.46	0.03	1	03/28/13 14:42	03/28/13 20:48	EPA 3050B	1,6010C	MG
Chromium, Total	8.0		mg/kg	0.46	0.09	1	03/28/13 14:42	03/28/13 20:48	EPA 3050B	1,6010C	MG
Lead, Total	4.2		mg/kg	2.3	0.14	1	03/28/13 14:42	03/28/13 20:48	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.08	0.02	1	03/29/13 11:30	03/30/13 17:19	EPA 7471B	1,7471B	AK
Selenium, Total	0.60	J	mg/kg	0.93	0.14	1	03/28/13 14:42	03/28/13 20:48	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.46	0.09	1	03/28/13 14:42	03/28/13 20:48	EPA 3050B	1,6010C	MG

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-06	Date Collected:	03/26/13 13:30
Client ID:	BH-4 15-20	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	86%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	5.0		mg/kg	0.46	0.14	1	03/28/13 14:42	03/28/13 20:51	EPA 3050B	1,6010C	MG
Barium, Total	39		mg/kg	0.46	0.14	1	03/28/13 14:42	03/28/13 20:51	EPA 3050B	1,6010C	MG
Cadmium, Total	ND		mg/kg	0.46	0.03	1	03/28/13 14:42	03/28/13 20:51	EPA 3050B	1,6010C	MG
Chromium, Total	18		mg/kg	0.46	0.09	1	03/28/13 14:42	03/28/13 20:51	EPA 3050B	1,6010C	MG
Lead, Total	8.6		mg/kg	2.3	0.14	1	03/28/13 14:42	03/28/13 20:51	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.09	0.02	1	03/29/13 11:30	03/30/13 17:20	EPA 7471B	1,7471B	AK
Selenium, Total	0.56	J	mg/kg	0.93	0.14	1	03/28/13 14:42	03/28/13 20:51	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.46	0.09	1	03/28/13 14:42	03/28/13 20:51	EPA 3050B	1,6010C	MG

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-07	Date Collected:	03/26/13 16:00
Client ID:	BH-5 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	4.5		mg/kg	0.47	0.14	1	03/28/13 14:42	03/28/13 20:53	EPA 3050B	1,6010C	MG
Barium, Total	13		mg/kg	0.47	0.14	1	03/28/13 14:42	03/28/13 20:53	EPA 3050B	1,6010C	MG
Cadmium, Total	ND		mg/kg	0.47	0.03	1	03/28/13 14:42	03/28/13 20:53	EPA 3050B	1,6010C	MG
Chromium, Total	6.0		mg/kg	0.47	0.09	1	03/28/13 14:42	03/28/13 20:53	EPA 3050B	1,6010C	MG
Lead, Total	3.3		mg/kg	2.3	0.14	1	03/28/13 14:42	03/28/13 20:53	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.08	0.02	1	03/29/13 11:30	03/30/13 17:22	EPA 7471B	1,7471B	AK
Selenium, Total	0.46	J	mg/kg	0.93	0.14	1	03/28/13 14:42	03/28/13 20:53	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.47	0.09	1	03/28/13 14:42	03/28/13 20:53	EPA 3050B	1,6010C	MG

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-08	Date Collected:	03/26/13 16:25
Client ID:	BH-5 17-20	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	87%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	4.3		mg/kg	0.44	0.13	1	03/28/13 14:42	03/28/13 20:59	EPA 3050B	1,6010C	MG
Barium, Total	38		mg/kg	0.44	0.13	1	03/28/13 14:42	03/28/13 20:59	EPA 3050B	1,6010C	MG
Cadmium, Total	0.10	J	mg/kg	0.44	0.03	1	03/28/13 14:42	03/28/13 20:59	EPA 3050B	1,6010C	MG
Chromium, Total	20		mg/kg	0.44	0.09	1	03/28/13 14:42	03/28/13 20:59	EPA 3050B	1,6010C	MG
Lead, Total	9.7		mg/kg	2.2	0.13	1	03/28/13 14:42	03/28/13 20:59	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.07	0.02	1	03/29/13 11:30	03/30/13 17:24	EPA 7471B	1,7471B	AK
Selenium, Total	0.53	J	mg/kg	0.87	0.13	1	03/28/13 14:42	03/28/13 20:59	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.44	0.09	1	03/28/13 14:42	03/28/13 20:59	EPA 3050B	1,6010C	MG

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-09	Date Collected:	03/26/13 14:00
Client ID:	BH-6 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	84%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	4.2		mg/kg	0.46	0.14	1	03/28/13 14:42	03/28/13 21:07	EPA 3050B	1,6010C	MG
Barium, Total	9.3		mg/kg	0.46	0.14	1	03/28/13 14:42	03/28/13 21:07	EPA 3050B	1,6010C	MG
Cadmium, Total	ND		mg/kg	0.46	0.03	1	03/28/13 14:42	03/28/13 21:07	EPA 3050B	1,6010C	MG
Chromium, Total	6.4		mg/kg	0.46	0.09	1	03/28/13 14:42	03/28/13 21:07	EPA 3050B	1,6010C	MG
Lead, Total	3.2		mg/kg	2.3	0.14	1	03/28/13 14:42	03/28/13 21:07	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.09	0.02	1	03/29/13 11:30	03/30/13 17:26	EPA 7471B	1,7471B	AK
Selenium, Total	0.44	J	mg/kg	0.92	0.14	1	03/28/13 14:42	03/28/13 21:07	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.46	0.09	1	03/28/13 14:42	03/28/13 21:07	EPA 3050B	1,6010C	MG

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-10	Date Collected:	03/27/13 08:30
Client ID:	BH-10 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	0.16		mg/kg	0.02	0.005	1	03/28/13 14:42	03/28/13 21:10	EPA 3050B	1,6010C	MG
Barium, Total	0.18		mg/kg	0.02	0.005	1	03/28/13 14:42	03/28/13 21:10	EPA 3050B	1,6010C	MG
Cadmium, Total	ND		mg/kg	0.02	0.001	1	03/28/13 14:42	03/28/13 21:10	EPA 3050B	1,6010C	MG
Chromium, Total	0.25		mg/kg	0.02	0.003	1	03/28/13 14:42	03/28/13 21:10	EPA 3050B	1,6010C	MG
Lead, Total	0.08		mg/kg	0.08	0.005	1	03/28/13 14:42	03/28/13 21:10	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.09	0.02	1	03/29/13 11:30	03/30/13 17:27	EPA 7471B	1,7471B	AK
Selenium, Total	0.02	J	mg/kg	0.03	0.005	1	03/28/13 14:42	03/28/13 21:10	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.02	0.003	1	03/28/13 14:42	03/28/13 21:10	EPA 3050B	1,6010C	MG

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-11	Date Collected:	03/27/13 09:00
Client ID:	BH-11 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	83%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	4.4		mg/kg	0.46	0.14	1	03/28/13 14:42	03/28/13 21:13	EPA 3050B	1,6010C	MG
Barium, Total	7.7		mg/kg	0.46	0.14	1	03/28/13 14:42	03/28/13 21:13	EPA 3050B	1,6010C	MG
Cadmium, Total	ND		mg/kg	0.46	0.03	1	03/28/13 14:42	03/28/13 21:13	EPA 3050B	1,6010C	MG
Chromium, Total	6.3		mg/kg	0.46	0.09	1	03/28/13 14:42	03/28/13 21:13	EPA 3050B	1,6010C	MG
Lead, Total	2.5		mg/kg	2.3	0.14	1	03/28/13 14:42	03/28/13 21:13	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.09	0.02	1	03/29/13 11:30	03/30/13 17:33	EPA 7471B	1,7471B	AK
Selenium, Total	0.56	J	mg/kg	0.93	0.14	1	03/28/13 14:42	03/28/13 21:13	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.46	0.09	1	03/28/13 14:42	03/28/13 21:13	EPA 3050B	1,6010C	MG

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-12	Date Collected:	03/27/13 09:30
Client ID:	BH-13 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	4.3		mg/kg	0.48	0.14	1	03/28/13 14:42	03/28/13 21:16	EPA 3050B	1,6010C	MG
Barium, Total	6.8		mg/kg	0.48	0.14	1	03/28/13 14:42	03/28/13 21:16	EPA 3050B	1,6010C	MG
Cadmium, Total	ND		mg/kg	0.48	0.03	1	03/28/13 14:42	03/28/13 21:16	EPA 3050B	1,6010C	MG
Chromium, Total	6.4		mg/kg	0.48	0.10	1	03/28/13 14:42	03/28/13 21:16	EPA 3050B	1,6010C	MG
Lead, Total	2.3	J	mg/kg	2.4	0.14	1	03/28/13 14:42	03/28/13 21:16	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.09	0.02	1	03/29/13 11:30	03/30/13 17:35	EPA 7471B	1,7471B	AK
Selenium, Total	0.45	J	mg/kg	0.95	0.14	1	03/28/13 14:42	03/28/13 21:16	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.48	0.10	1	03/28/13 14:42	03/28/13 21:16	EPA 3050B	1,6010C	MG

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-13	Date Collected:	03/27/13 10:30
Client ID:	BH-14 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	78%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	6.3		mg/kg	0.49	0.15	1	03/28/13 14:42	03/28/13 21:19	EPA 3050B	1,6010C	MG
Barium, Total	10		mg/kg	0.49	0.15	1	03/28/13 14:42	03/28/13 21:19	EPA 3050B	1,6010C	MG
Cadmium, Total	0.23	J	mg/kg	0.49	0.03	1	03/28/13 14:42	03/28/13 21:19	EPA 3050B	1,6010C	MG
Chromium, Total	9.1		mg/kg	0.49	0.10	1	03/28/13 14:42	03/28/13 21:19	EPA 3050B	1,6010C	MG
Lead, Total	2.9		mg/kg	2.4	0.15	1	03/28/13 14:42	03/28/13 21:19	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.10	0.02	1	03/29/13 11:30	03/30/13 17:36	EPA 7471B	1,7471B	AK
Selenium, Total	0.65	J	mg/kg	0.98	0.15	1	03/28/13 14:42	03/28/13 21:19	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.49	0.10	1	03/28/13 14:42	03/28/13 21:19	EPA 3050B	1,6010C	MG

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

SAMPLE RESULTS

Lab ID:	L1305165-14	Date Collected:	03/27/13 11:00
Client ID:	BH-8 10-15	Date Received:	03/27/13
Sample Location:	STATEN ISLAND	Field Prep:	Not Specified
Matrix:	Soil		
Percent Solids:	81%		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Arsenic, Total	5.0		mg/kg	0.48	0.14	1	03/28/13 14:42	03/28/13 21:21	EPA 3050B	1,6010C	MG
Barium, Total	7.3		mg/kg	0.48	0.14	1	03/28/13 14:42	03/28/13 21:21	EPA 3050B	1,6010C	MG
Cadmium, Total	ND		mg/kg	0.48	0.03	1	03/28/13 14:42	03/28/13 21:21	EPA 3050B	1,6010C	MG
Chromium, Total	7.5		mg/kg	0.48	0.10	1	03/28/13 14:42	03/28/13 21:21	EPA 3050B	1,6010C	MG
Lead, Total	2.4		mg/kg	2.4	0.14	1	03/28/13 14:42	03/28/13 21:21	EPA 3050B	1,6010C	MG
Mercury, Total	ND		mg/kg	0.10	0.02	1	03/29/13 11:30	03/30/13 17:38	EPA 7471B	1,7471B	AK
Selenium, Total	0.61	J	mg/kg	0.95	0.14	1	03/28/13 14:42	03/28/13 21:21	EPA 3050B	1,6010C	MG
Silver, Total	ND		mg/kg	0.48	0.10	1	03/28/13 14:42	03/28/13 21:21	EPA 3050B	1,6010C	MG

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165

Project Number: 190 **Report Date:** 04/02/13

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-14 Batch: WG598125-1										
Arsenic, Total	ND		mg/kg	0.40	0.12	1	03/28/13 14:42	03/28/13 20:13	1,6010C	MG
Barium, Total	ND		mg/kg	0.40	0.12	1	03/28/13 14:42	03/28/13 20:13	1,6010C	MG
Cadmium, Total	ND		mg/kg	0.40	0.02	1	03/28/13 14:42	03/28/13 20:13	1,6010C	MG
Chromium, Total	ND		mg/kg	0.40	0.08	1	03/28/13 14:42	03/28/13 20:13	1,6010C	MG
Lead, Total	ND		mg/kg	2.0	0.12	1	03/28/13 14:42	03/28/13 20:13	1,6010C	MG
Selenium, Total	ND		mg/kg	0.80	0.12	1	03/28/13 14:42	03/28/13 20:13	1,6010C	MG
Silver, Total	ND		mg/kg	0.40	0.08	1	03/28/13 14:42	03/28/13 20:13	1,6010C	MG

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01-14 Batch: WG598290-1										
Mercury, Total	ND		mg/kg	0.08	0.02	1	03/29/13 11:30	03/30/13 16:57	1,7471B	AK

Prep Information

Digestion Method: EPA 7471B

Lab Control Sample Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-14 Batch: WG598125-2 SRM Lot Number: 0518-10-02								
Arsenic, Total	104		-		81-119	-		
Barium, Total	104		-		83-118	-		
Cadmium, Total	102		-		82-117	-		
Chromium, Total	101		-		80-119	-		
Lead, Total	100		-		80-120	-		
Selenium, Total	106		-		80-120	-		
Silver, Total	123		-		66-134	-		
Total Metals - Westborough Lab Associated sample(s): 01-14 Batch: WG598290-2 SRM Lot Number: 0518-10-02								
Mercury, Total	114		-		67-133	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190
Lab Number: L1305165
Report Date: 04/02/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-14 QC Batch ID: WG598125-4 QC Sample: L1305165-01 Client ID: BH-15 10-12												
Arsenic, Total	5.2	10.9	16	99		-	-		75-125	-		35
Barium, Total	11.	182	200	104		-	-		75-125	-		35
Cadmium, Total	0.10J	4.63	4.6	99		-	-		75-125	-		35
Chromium, Total	7.4	18.2	28	113		-	-		75-125	-		35
Lead, Total	3.0	46.3	48	97		-	-		75-125	-		35
Selenium, Total	0.73J	10.9	11	101		-	-		75-125	-		35
Silver, Total	ND	27.2	29	106		-	-		75-125	-		35
Total Metals - Westborough Lab Associated sample(s): 01-14 QC Batch ID: WG598290-4 QC Sample: L1305147-01 Client ID: MS Sample												
Mercury, Total	ND	0.147	0.16	109		-	-		70-130	-		35

Lab Duplicate Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01-14 QC Batch ID: WG598125-3 QC Sample: L1305165-01 Client ID: BH-15 10-12						
Arsenic, Total	5.2	5.8	mg/kg	11		35
Barium, Total	11.	11	mg/kg	0		35
Cadmium, Total	0.10J	ND	mg/kg	NC		35
Chromium, Total	7.4	7.8	mg/kg	5		35
Lead, Total	3.0	3.3	mg/kg	10		35
Selenium, Total	0.73J	0.64J	mg/kg	NC		35
Silver, Total	ND	ND	mg/kg	NC		35
Total Metals - Westborough Lab Associated sample(s): 01-14 QC Batch ID: WG598290-3 QC Sample: L1305147-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/kg	NC		35

INORGANICS
&
MISCELLANEOUS

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-01
Client ID: BH-15 10-12
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/27/13 11:30
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.3		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-02
Client ID: BH 16 10-12
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/27/13 12:00
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.5		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-03
Client ID: BH 18 10-13
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/27/13 12:30
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	82.6		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-04
Client ID: BH 19 10-13
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/27/13 13:00
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.7		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-05
Client ID: BH-2 10-14
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/26/13 12:00
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.3		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-06
Client ID: BH-4 15-20
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/26/13 13:30
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	85.5		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-07
Client ID: BH-5 10-15
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/26/13 16:00
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.1		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-08
Client ID: BH-5 17-20
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/26/13 16:25
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	87.4		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-09
Client ID: BH-6 10-15
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/26/13 14:00
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	84.0		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-10
Client ID: BH-10 10-15
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/27/13 08:30
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.9		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-11
Client ID: BH-11 10-15
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/27/13 09:00
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	83.0		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-12
Client ID: BH-13 10-15
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/27/13 09:30
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.8		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-13
Client ID: BH-14 10-15
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/27/13 10:30
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.6		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

SAMPLE RESULTS

Lab ID: L1305165-14
Client ID: BH-8 10-15
Sample Location: STATEN ISLAND
Matrix: Soil

Date Collected: 03/27/13 11:00
Date Received: 03/27/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.7		%	0.100	NA	1	-	03/28/13 19:04	30,2540G	RD

Lab Duplicate Analysis
Batch Quality Control

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-14 QC Batch ID: WG598199-1 QC Sample: L1305147-01 Client ID: DUP Sample						
Solids, Total	90.2	91.1	%	1		20

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Reagent H2O Preserved Vials Frozen on: NA

Cooler Information	Custody Seal
Cooler	
A	Absent

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1305165-01A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)
L1305165-01B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TS(7),PB-TI(180),SE-TI(180),HG-T(28),NYTCL-8082(14),CD-TI(180)
L1305165-02A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)
L1305165-02B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1305165-03A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)
L1305165-03B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1305165-04A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1305165-04B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1305165-05A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)
L1305165-05B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),CO-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1305165-06A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)
L1305165-06B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1305165-07A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)
L1305165-07B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1305165-08A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1305165-08B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1305165-09A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)
L1305165-09B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1305165-10A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)
L1305165-10B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1305165-11A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)
L1305165-11B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1305165-12A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)

*Values in parentheses indicate holding time in days

Project Name: ARTHUR KILL PHASE II
Project Number: 190

Lab Number: L1305165
Report Date: 04/02/13

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1305165-12B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1305165-13A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)
L1305165-13B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)
L1305165-14A	Amber 120ml unpreserved	A	N/A	2.8	Y	Absent	NYTCL-8260(14)
L1305165-14B	Amber 250ml unpreserved	A	N/A	2.8	Y	Absent	BE-TI(180),NYTCL-8270(14),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),TS(7),CU-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),NYTCL-8082(14),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)

*Values in parentheses indicate holding time in days

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

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

Terms

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

Data Qualifiers

A	- Spectra identified as "Aldol Condensation Product".
B	- The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
C	- Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
D	- Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	- Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	- The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	- The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	- The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: DU Report with "J" Qualifiers

Project Name:	ARTHUR KILL PHASE II	**Lab Number:**	L1305165
Project Number:	190	**Report Date:**	04/02/13

Data Qualifiers

due to obvious interference.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name: ARTHUR KILL PHASE II **Lab Number:** L1305165
Project Number: 190 **Report Date:** 04/02/13

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.

30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.

LIMITATION OF LIABILITIES

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

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

Certificate/Approval Program Summary

Last revised December 19, 2012 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

Connecticut Department of Public Health Certificate/Lab ID: PH-0574. ***NELAP Accredited Solid Waste/Soil.***

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010B, 6010C, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8081A, 8081B, 8082, 8082A, 8330, 8151A, 8260B, 8260C, 8270C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9030B, 9040B, 9045C, 6010B, 6010C, 6020, 6020A, 7471A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8270D, 8330, 8151A, 8081A, 8081B, 8082, 8082A, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
Drinking Water (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT,Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM2520B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D, 9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6010C, 6020, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, LACHAT 10-204-00-1-A, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 625, 608, 8081A, 8081B, 8151A, 8330, 8082, 8082A, EPA 3510C, 5030B.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010B, 6010C, 7196A, 7471A, 7471B, 9012B, 9014, 9065, 9050A, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8015B, 8015C, 8081A, 8081B, 8151A, 8330, 8082 8082A, 3540C,

3546, 3580A, 5030B, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

Rhode Island Department of Health Certificate/Lab ID: LAO00065. ***NELAP Accredited via NJ-DEP.***
Refer to MA-DEP Certificate for Potable and Non-Potable Water.
Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.2, 2320B, 4500F-C, 4500NO3-F, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 9010B, 9040B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9030B, 9010B, 9012A, 9014 9040B, 9045C, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 355B0, 3580A, 3630C, 6020A, 8260B, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

Department of Defense, L-A-B Certificate/Lab ID: L2217.
Drinking Water (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C,

8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
EPA 8260B: Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

CHAIN OF CUSTODY

PAGE 1 OF 2

Date Rec'd in Lab: 3/27/13

ALPHA Job #: L1305165

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: C&S Engineers.
Address: 499 Col. Eileen Collins Blvd
Syracuse NY 13212
Phone: 315 455 2006
Fax: 455 9667
Email: rwoodmansee@cscos.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Arthur Kill Phase IV
Project Location: Staten Island
Project #: 190
Project Manager: Rory Woodmansee
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 4/3/13 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program	Criteria

Other Project Specific Requirements/Comments/Detection Limits:

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOCs	SVOCs, PCB, Metals	Sample Specific Comments	Total # Bottles
05165.1	BH-15 10-12	3/27/13	1130	Soil	WMR	X	X		
.2	BH-16 10-12	3/27/13	1200	Soil	WMR	X	X		
.3	BH18 10-13	3/27/13	1230	Soil	WMR	X	X		
.4	BH19 10-13	3/27/13	1300	Soil	WMR	X	X		

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

Container Type	2	4
Preservative	–	–

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible]	3/27/13	[illegible]	3/27/13 1725
[illegible]	3/27/13	[illegible]	3-27-13 21—
[illegible]	3/27-13 2340	[illegible]	3/27/13 2340

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

CHAIN OF CUSTODY

PAGE 2 OF 2

Date Rec'd in Lab: 3/27/13

ALPHA Job #: L1305165

ALPHA ANALYTICAL
WESTBORO, MA TEL: 508-898-9220 FAX: 508-898-9193
MANSFIELD, MA TEL: 508-822-9300 FAX: 508-822-3288

Client Information

Client: CDS Engineers Inc.
Address: 499 Col. Eileen Collins Blvd.
Phone: 315 455-2000
Fax: 315-455-9667
Email: wr woodmansee@cscds.com

☐ These samples have been previously analyzed by Alpha

Project Information

Project Name: Arthur Kill Phase II
Project Location: Staten Island, NY
Project #: 190
Project Manager: Rory Woodmansee
ALPHA Quote #:

Turn-Around Time

☒ Standard ☐ RUSH (only confirmed if pre-approved!)
Date Due: 4/3/13 Time:

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☐ ADEx ☐ Add'l Deliverables

Billing Information

☐ Same as Client info PO #:

Regulatory Requirements/Report Limits

State /Fed Program | Criteria

Other Project Specific Requirements/Comments/Detection Limits:

ANALYSIS: VOC, SVOC, Metals, PCB

SAMPLE HANDLING
Filtration
☐ Done
☐ Not needed
☐ Lab to do
Preservation
☐ Lab to do
(Please specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC	SVOC, Metals, PCB	Sample Specific Comments	Total # Bottles
05165.5	BH-2 10-14	3/26/13	12:60	Soil	WMR	X	X		
.6	BH-4 15-20	3/26/13	13:30	Soil	WMR	X	X		
.7	BH-5 10-15	3/26/13	16:00	Soil	WMR	X	X		
.8	BH-5 17-20	3/26/13	16:25	Soil	WMR	X	X		
.9	BH-6 10-15	3/26/13	1400	Soil	WMR	X	X		
.10	BH-10 10-15	3/27/13	830	Soil	WMR	X	X		
.11	BH-11 10-15	3/27/13	900	Soil	WMR	X	X		
.12	BH-13 10-15	3/27/13	930	Soil	WMR	X	X		
.13	BH-14 10-15	3/27/13	1030	Soil	WMR	X	X		
.14	BH-8 10-15	3/27/13	1100	Soil	WMR	X	X		
				Container Type		2	4		
				Preservative		—	—		

Relinquished By:	Date/Time	Received By:	Date/Time
[signature]	3/27/13 1725	[signature]	3/27/13 1725
[signature]	3/27/13 3-27-13 2340	[signature]	3-27-13 21
[signature]		[signature]	3/27/13 2340

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

FORM NO: 01-01 (rev. 14-OCT-07)

SUBSURFACE INVESTIGATION REPORT
NEW FIRING RANGE
ARTHUR KILL CORRECTIONAL FACILITY
STATEN ISLAND, NEW YORK

Prepared for:

NEW YORK STATE DEPARTMENT OF CORRECTIONS AND COMMUNITY SUPERVISION

AND

NEW YORK STATE OFFICE OF GENERAL SERVICES

NYS OFFICE OF GENERAL SERVICES
Serving New York

Andrew M. Cuomo
Governor

RoAnn M. Destito
Commissioner

Prepared by:

C&S ENGINEERS, INC.
499 COL. EILEEN COLLINS BLVD.
SYRACUSE, NEW YORK 13212

MAY 2013

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Appendix A Analytical Laboratory Report

I. EXECUTIVE SUMMARY

This Report has been prepared by C&S Engineers, Inc. (C&S) under an agreement with the New York State Office of General Services (NYSOGS) to support the effort of the New York State Department of Corrections and Community Supervision (NYSDOCCS) in assessing potential environmental issues at the Arthur Kill Correctional Facility (the subject property). The investigation focused on an approximately one-acre portion of the subject property containing engineered landforms and structures together comprising the New Firing Range. Directly to the east of the New Firing Range is the Former Firing Range which has been the subject of several environmental investigations and for which a remedial program has entered the design phase. The goal of this investigation of the New Firing Range is to provide data relevant to the inclusion of this area into the remedial program being developed for the former range

A Phase I Environmental Site Assessment (ESA) was prepared for the Arthur Kill Correctional Facility in December 2011 by HRP Associates, Inc. of Clifton Park, New York. The Phase I ESA identified recognized environmental conditions (RECs), including the firing ranges. The scope of this investigation was based on the findings and recommendations of that report which consisted of past uses of the subject property and adjacent properties. The scope is fully detailed in Section II-A below.

C&S mobilized to the site on March 18, 2013 and was assisted by New York Leak Detection, Inc. (NYLD) of Jamesville, New York (utility locating subcontractor). The drilling subcontractor, EMC, Inc. of Rockaway, New Jersey then mobilized on March 25, 2013 to assist in collecting soil samples. Prior to the site mobilization, Dig Safely New York, Inc. was contacted and the member utilities provided information and/or markouts . Prior to conducting ground-intrusive explorations, NYLD utilized utility locating and geophysical investigative techniques to identify subsurface utilities and structures.

Based on the total lead distribution patterns in the former range, the investigation of the new range focused on:

- The floor area between the berms;
- The inside berm walls; and
- The northern inside end (“target” end) of the range.

In addition to the three areas of focus, eight borings were advanced and sampled in the same manner as the other borings, along the outside berm walls of the new range. Table 1 provides a sampling log.

The ground intrusive investigations were advanced at thirty-two (32) sampling locations (Figure 2), twenty-nine (29) of which were accessible by track-mounted Geo-Probe™ (Model 7822 DT). Soil samples were collected at each boring location from three depth intervals:

- 0 to 6 inches
- 6 to 12 inches
- Below 12 inches (either 1 to 2 feet or 1 to 5 feet).

At the three locations not accessible by the Geo-Probe™, a sample from the 0- to 6- inch depth was collected manually. Soil materials encountered were homogeneous fine-to medium light brown sands with little silt and varying amounts of crushed limestone and/or organic materials (grass/roots) within the top several inches. Groundwater was not encountered at the terminal depth of borings (maximum of five- feet below the ground surface). There were no indications of abnormal subsurface conditions (e.g., stains or odors); therefore, the planned analytical protocol was followed and one sample from each sampling interval was analyzed for total lead, and one or more samples from each area of focus was also submitted for analyses for semivolatile organic compounds (SVOCs) and for toxic characteristic leaching procedures (TCLP) lead. Table 2 provides the lead data for the soil samples. Table 4 provides the SVOCs data for soil samples.

Several non-soil samples were also collected, including a sample of the rubber target media, and samples of wood from timbers and growing trees. Table 3 provides the data for these non-soil samples.

Review of the analytical data and comparison to 6 NYCRR 375-6 *Remedial Program Soil Cleanup Objectives* (SCOs) indicates that the following detections in relation to one or more of the SCOs:

- The total lead data for soil samples indicate one New Firing Range location (NFR-30) where lead was detected in the 0- to 6- inch depth interval at a concentration that exceeds the "Residential Use" SCO (400 mg/kg).
- The total lead data exhibit declining concentrations with depth, illustrating the extent of firing range impacts. The percentage of samples exceeding the "Unrestricted Use" SCO (63 mg/kg) declined from 81% in the 0- to 6- inch depth interval to 17% for samples collected from deeper than 1 foot below the ground surface.
- Despite the trend of total lead concentrations declining with depth, exceedence of the "Unrestricted Use" SCO was exhibited at locations on the outside of the berms, and at depths of up to 5 feet below the ground surface, where firing range impacts would not be likely.
- There were no detections of SVOCs in soil that exceeded the "Unrestricted Use" SCOs for those compounds.

Guidance regarding property remediation for redevelopment under any of several programs administered by the New York State Department of Environmental Conservation (NYSDEC) is provided in *DER-10* / *Technical Guidance for Site Investigation and Remediation.* Based on the detections of total lead in soil samples, a remedial action to achieve "Residential Use" status (less than 400 mg/kg total lead) for the site would require removal of limited amounts of soil from the area of sample NFR-30. Based on detections of total lead in non-soil samples, cleanup to "Residential Use" SCOs would also require removal and proper disposal of the bullet trap media and of impacted wood cribbing in the target area. To achieve "Unrestricted Use" SCOs for the new firing range, the range would need to be completely demolished since the removal of materials that exceed the "Unrestricted Use" SCO would destroy the integrity of the steep, reinforced berms that provide the outer walls of the range.

For future property uses other than "Unrestricted", the generally low levels of SVOCs detected indicate that these compounds would not be expected to impact the scope of remedial work. The data indicate that, following the limited removals outlined above, the site would likely be suitable for "Industrial Use", "Commercial Use" or "Residential Use" under the NYSDEC guidelines. Under any of those "Restricted Use" clean-up scenarios, the restrictions that would be instituted following cleanup verification would address direct contact with, or ingestion of the soils. Although characterization of groundwater quality was not within the scope of this investigation, institution of a groundwater use restriction for the property may also be part of a future "Restricted Use" redevelopment scenario.

II. INTRODUCTION

A. Purpose and Background

C&S Engineers, Inc., (C&S) under an agreement with NYSOGS, has conducted a subsurface investigation of the New Firing Range and in support of an effort by the NYSDOCCS to assess potential environmental issues at the Arthur Kill Correctional Facility (the subject property), which was closed in 2010. The investigation focused on an approximately one-acre portion of the subject property containing engineered landforms (berms) and structures together comprising the New Firing Range. Directly to the east of the New Firing Range is the Former Firing Range which has been the subject of several environmental investigations and for which a remedial program has entered the design phase. The goal of this investigation of the New Firing Range is to provide data relevant to the inclusion of this area into the remedial program being developed for the former range

A Phase I Environmental Site Assessment (ESA) prepared for the Arthur Kill Correctional Facility in December 2011 by HRP Associates, Inc. of Clifton Park, New York. The Phase I ESA identified recognized environmental conditions (RECs), including the firing ranges. The scope of this investigation was based on the findings and recommendations of that report which consisted of past uses of the subject property and adjacent properties.

B. Scope and Objectives of the Investigation

Objectives of the investigation were to:

- Determine the absence or presence of lead impacts due to the activities of the firing range within the surface and subsurface soils via conventional field techniques and laboratory analysis.
- Assess laboratory data relative to applicable NYSDEC regulations and guidance values, specifically 6 NYCRR 375-6 "Unrestricted Use" and "Residential Use" Soil Clean-up Objectives.
- Provide conclusions, opinions, and recommendations based upon the information gathered during this effort.

The scope of work for this subsurface investigation was developed based on our experience assessing conditions and remedial options associated with the Former Firing Range, which is located immediately to the east of the New Firing Range. Figure 1 illustrates the locations of the New Firing Range within the greater Arthur Kill Correctional Facility property and the surrounding region. Our scope of services was prepared to provide a reasonable characterization of subsurface conditions and total lead impacts at a reasonable cost to the State and was not intended to be a comprehensive site investigation to determine the nature and extent of contamination at the site. This was generally accomplished by utilizing a grid approach to the layout of borings and by limiting the analytical parameters to lead, for assessment of firing range activity impacts, and SVOCs, as indicators of likely background contamination within the fill materials that comprise the firing range berms and floor.

C. Special Terms and Conditions

Besides the standard business contract between C&S and our Client, this Subsurface Investigation was conducted, in our opinion, with no impeding special terms and conditions that would alter the scope and/or effectiveness of the NYSDEC Program Policy *DER-10 / Technical Guidance for Site Investigation and Remediation* (May 3, 2010).

D. Out of Scope Considerations

The locations of pavements, overhead baffles, retaining walls, enclosures, and steep-sided berms prevented access to the entire site with drilling equipment. However, in our opinion, access was sufficient to provide representative samples for all areas.

E. Site Description and Features

Arthur Kill Correctional Facility is owned by NYSDOCCS. The former firing range was reputedly used starting in 1979 by corrections officers and by other agencies for the practice of marksmanship skills until approximately 2005 when the New Firing Range was constructed immediately to the west. The former firing range was abandoned at that time and the New Firing Range was used from that time until the Arthur Kill Correctional Facility was closed in 2010. Figure 1 is an aerial photograph showing the Correctional Facility and the location of the New Firing Range.

The types of weapons used at the New Firing Range reportedly included pistols, revolvers, rifles, and shotguns. Although there has been considerable data generated via investigations of soils in the Former Firing Range, it was unclear whether those data would be applicable to the New Range due to:

- The apparent different weapons used in the new range;
- The much shorter period of use of the new range; and
- The lack of information regarding the soil materials used to construct the new range.

The investigation followed the guidelines provided by the NYSDEC Program Policy *DER-10 / Technical Guidance for Site Investigation and Remediation* (May 3, 2010).

III. INVESTIGATION ACTIVITIES

A. Sampling Plan

The sampling plan, as executed for this subsurface investigation, is described below:

- Layout and field staking of each exploration was conducted using GIS techniques and a survey quality hand-held GPS unit.

- NYLD performed utility identification and geophysical surveys of the investigation areas. The chief purpose of the those surveys was to determine the absence or presence of subsurface features such as septic disposal systems, fuel tanks and piping, and underground private and public utilities (e.g. gas, water, sewer, telephone). Each test boring location was "cleared" by NYLD prior to advancement of the boring.

- A Direct Push Technology (GeoProbe) rig was mobilized to make test borings. Ultimately 30 test borings were completed in order to obtain representative subsurface soil samples from the study areas. The terminal depth of the boreholes ranged from two feet to five feet below ground surface. Figure 2 shows the locations of the test borings.

- C&S provided full time environmental monitoring and documentation of the subsurface investigation. This included physical inspection of samples with regard to color, density, moisture, grain size, and physical evidence (visual / olfactory) indicative of contaminants and recording of field information for subsequent creation of logs to document the activities.

Based on the total lead distribution patterns in the former range, the investigation of the new range focused on:

- The floor area between the berms;
- The inside berm walls; and
- The northern inside end ("target" end) of the range.

In addition to the three areas of focus, eight borings were advanced and sampled in the same manner as the other borings, along the outside berm walls of the new range. Table 1 provides a sampling log.

The ground intrusive investigations were advanced at thirty-two (32) sampling locations (Figure 2), twenty-nine (29) of which were accessible by track-mounted Geo-Probe™ (Model 7822 DT). Soil samples were collected at each boring location from three depth intervals:

- 0 to 6 inches
- 6 to 12 inches
- Below 12 inches (either 1 to 2 feet or 1 to 5 feet).

At the three locations not accessible by the Geo-Probe™, a sample from the 0 to 6 inch depth was collected manually.

Several non-soil samples were also collected, including a sample of the rubber target media, and samples of wood from construction timbers and growing trees.

B. Field Exploration Results

Table 2 provides the total lead data for soil samples and Table 3 provides the lead data for the non-soil samples (rubber bullet trap media and wood from construction timbers and growing trees). Table 4 provides the SVOCs data for soil samples.

Review of the analytical data and comparison to 6 NYCRR 375-6 *Remedial Program Soil Cleanup Objectives* (SCOs) indicates that the following parameters were detected at concentrations exceeding one or more SCOs at the locations shown:

- The total lead data for soil samples indicate one location (NFR-30) where lead was detected in the 0- to 6- inch depth interval at a concentration that exceeds the "Residential Use" SCO (400 mg/kg).
- The total lead data exhibited declining concentrations with depth, illustrating the extent of firing range impacts, with the fraction of samples exceeding the "Unrestricted Use" SCO (63 mg/kg) declining from 81% in the 0- to 6- inch depth interval to 17% for samples collected from deeper than 1 foot below the ground surface. However, lead concentrations exceeding the "Unrestricted Use" SCO were exhibited at locations on the outside of the berms, and at depths of up to 5 feet below the ground surface, where firing range impacts would not be likely.
- There were no detections of any SVOCs that exceeded the "Unrestricted Use" SCOs for those compounds.

IV. FINDINGS AND CONCLUSIONS

Based upon the information gathered during this Site Investigation, which was conducted consistent with ASTM E 1903 (2002) *"Standard Guide for Environmental Site Assessments: Phase II Environmental Site Assessment Process* and NYSDEC's *DER-10 / Technical Guidance for Site Investigation and Remediation* (May 3, 2010), we offer the following findings and conclusions.

A. Field Activities and Observations

Figure 2 illustrates the locations of the thirty-two soil sampling locations, spaced relatively evenly over the accessible exterior portions of the New Firing Range. Soil materials encountered were homogeneous fine-to medium light brown sands with little silt and varying amounts of crushed limestone and/or organic materials (grass/roots) within the top several inches. Groundwater was not encountered at the terminal depth of borings (maximum of five- feet below

the ground surface). There were no indications of abnormal subsurface conditions (e.g., stains or odors); therefore, the planned analytical protocol was followed and one sample from each sampling interval was analyzed for total lead, and one or more samples from each area of focus was also submitted for analyses for semivolatile organic compounds (SVOCs) and for toxic characteristic leaching procedures (TCLP) lead.

B. Data Summary

A total of 104 discrete depth soil samples were submitted to Test America of Amherst, New York for analysis of total lead. One or more samples from each area of investigation were also submitted for analysis of SVOCs. Several soil and non-soil samples were also analyzed for TCLP lead.

Total Lead Data Summary

Table 2 indicates that one soil sample exhibited a concentration of total lead that exceeds the 400 mg/kg "Residential Use" SCO for lead. That sample (NFR-30) was collected from the inside berm at the rear ("target end") of the range at a location inaccessible to drilling equipment, and therefore manually sampled in the 0- to 6- inch depth interval.

The bullet trap media also exhibited an extremely elevated concentration of total lead (Table 3), undoubtedly due to the presence of many spent ballistics within these materials. Wood samples collected from growing trees (former firing range) and from construction timbers (new range) exhibited total lead concentrations ranging from 39.4 mg/kg (tree) to 904 mg/kg (timber fragments).

The total lead data for soils exhibited declining concentrations with depth. The average total lead concentration in the 0- to 6- inch depth interval was approximately 125 mg/kg, with, with 81% of the samples exceeding the "Unrestricted Use" SCO (63 mg/kg). For the 6- to 12- inch depth samples, the average total lead concentration declined to approximately 64 mg/kg, with approximately 51% of the samples exceeding the "Unrestricted Use" SCO. Below the one foot depth interval, a further decline was exhibited, with an average total lead concentration of approximately 23 mg/kg, and 17% exceeding the "Unrestricted Use" SCO. However, lead concentrations exceeding the "Unrestricted Use" SCO were exhibited at several locations on the outside of the berms (locations NFR-25, NFR-26, NFR-27, NFR-28, and NFR-29), and at depths of 2 to 5 feet below the ground surface, where firing range impacts would not be likely.

Toxic Characteristics Leaching Procedure (TCLP) Lead Data Summary

TCLP lead data for soils (Table 2) and for non-soil materials (Table 3) indicate that the bullet trap materials and one of the wood samples exhibit TCLP concentrations exceeding the 5 mg/L regulatory limit, indicating that these materials would likely need to be disposed of as hazardous waste.

Semivolatile Organic Compounds (SVOCs) Data Summary

There were no detections of SVOCs that exceeded the "Unrestricted Use" SCOs for those compounds (Table 4).

C. Conclusions

Guidance regarding property remediation for redevelopment under any of several programs administered by the NYSDEC is provided in *DER-10* / *Technical Guidance for Site Investigation and Remediation.* Based on the detections of total lead in soil samples, a remedial action to achieve "Residential Use" status (less than 400 mg/kg total lead) for the site would require removal of limited amounts of soil from the area of sample NFR-30. Based on detections of total lead in non-soil samples, cleanup to "Residential Use" SCOs would also require removal and proper disposal of the bullet trap media and of impacted wood cribbing in the target area. To achieve "Unrestricted Use" SCOs for the new firing range, the range would need to be completely demolished since the removal of materials that exceed the "Unrestricted Use" SCO would destroy the integrity of the steep, reinforced berms that provide the outer walls of the range.

For future property uses other than "Unrestricted", the generally low levels of SVOCs detected indicate that these compounds would not be expected to impact the scope of remedial work. The data indicate that, following the limited removals outlined above, the site would likely be suitable for "Industrial Use", "Commercial Use" or "Residential Use" under the NYSDEC guidelines. Under any of those "Restricted Use" clean-up scenarios, the restrictions that would be instituted following cleanup verification would address direct contact with, or ingestion of the soils. Although characterization of groundwater quality was not within the scope of this investigation, institution of a groundwater use restriction for the property may also be part of a future "Restricted Use" redevelopment scenario.

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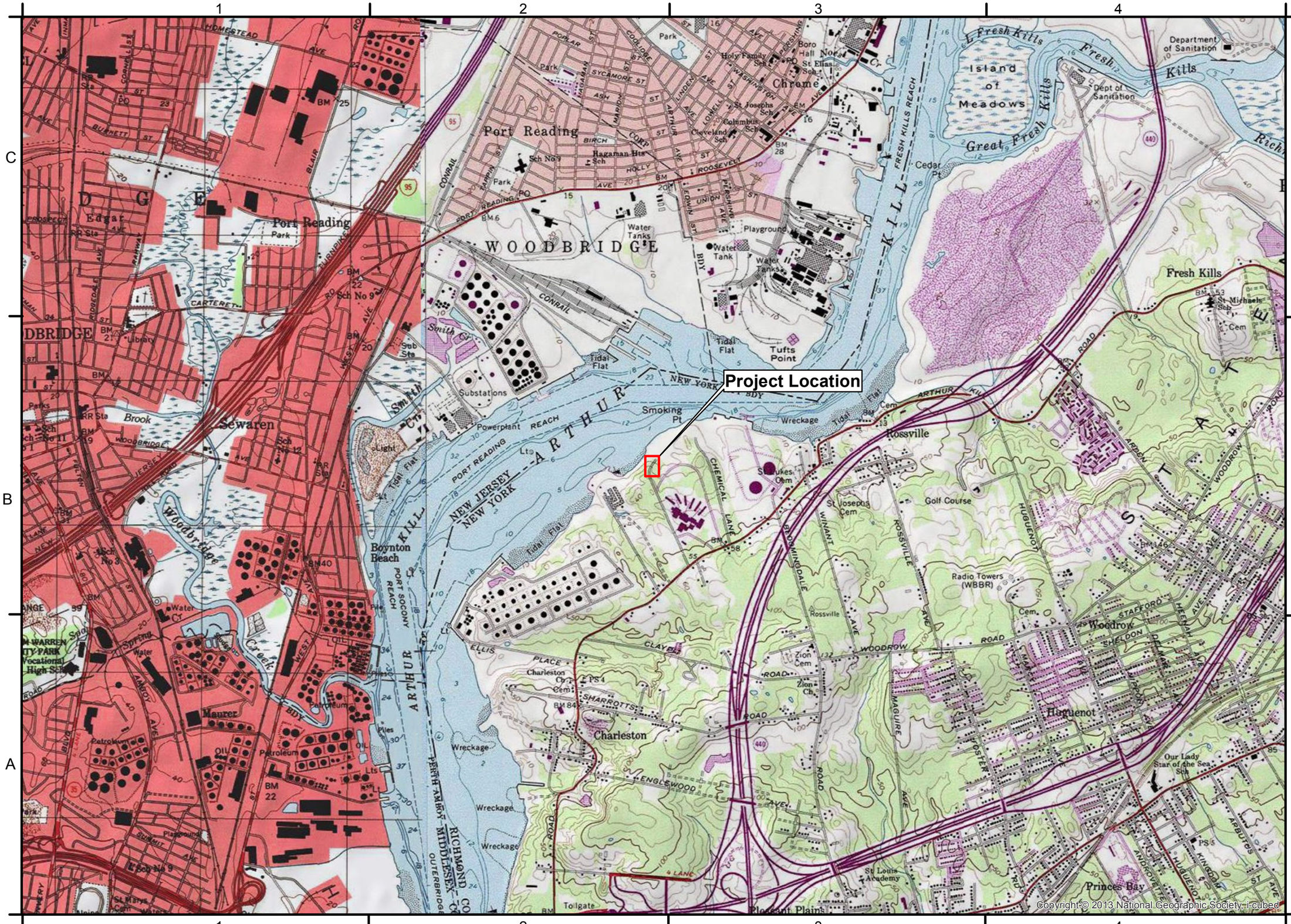
FIGURES



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N W E S

0 2,000 Feet
1 inch = 2,000 feet

SUBSURFACE INVESTIGATION REPORT
NEW FIRING RANGE
ARTHUR KILL CORRECTIONAL FACILITY
STATEN ISLAND, NEW YORK

PROJECT NO:	190
DATE:	May 2013
SCALE:	AS SHOWN
DRAWN BY:	WNR
DESIGNED BY:	WNR
CHECKED BY:	RW

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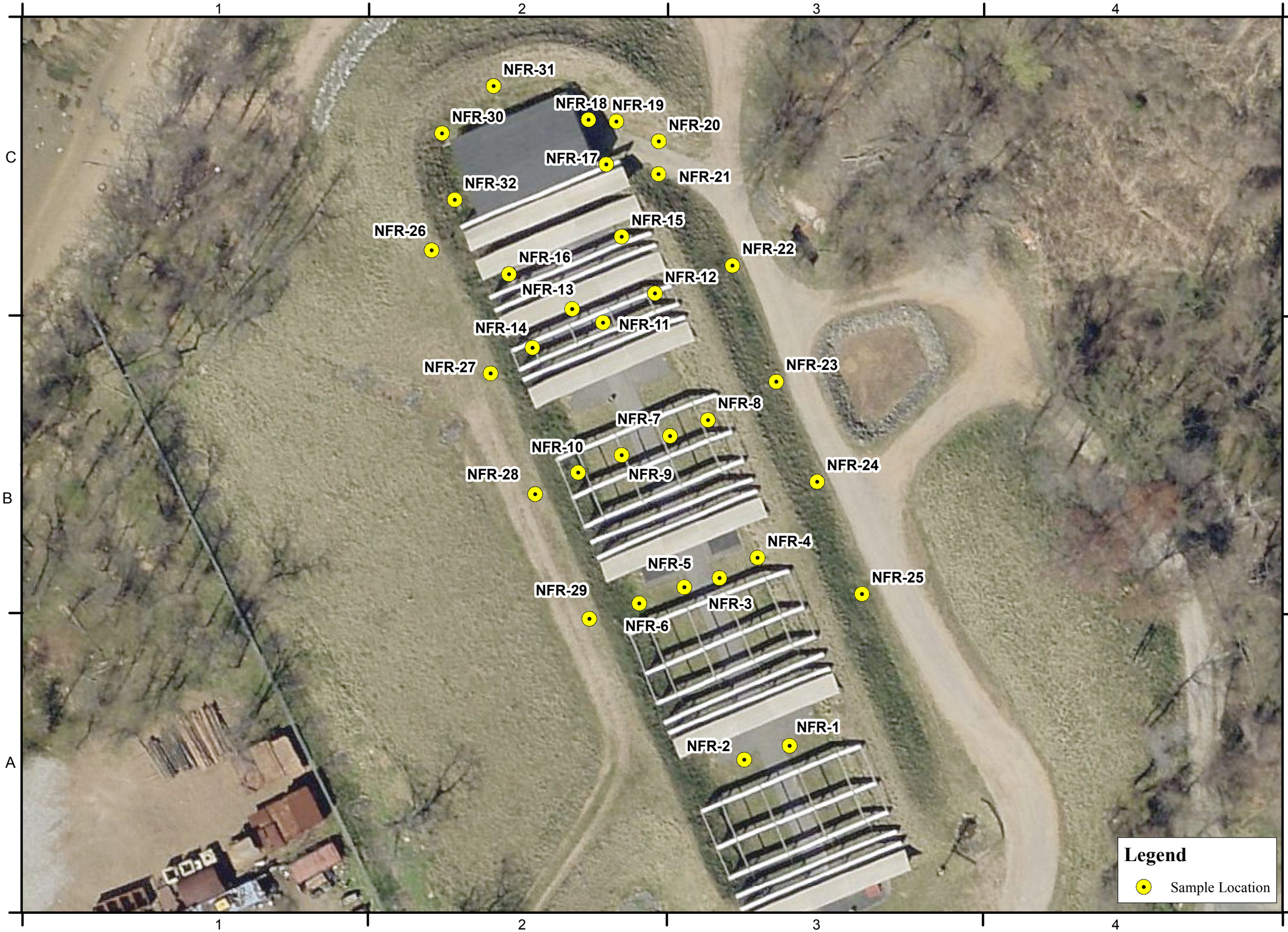
Project Location Map

Figure 1



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www.cscos.com

N W E S

0 35 Feet
1 inch = 35 feet

SUBSURFACE INVESTIGATION REPORT
NEW FIRING RANGE
ARTHUR KILL CORRECTIONAL FACILITY
STATEN ISLAND, NEW YORK

PROJECT NO:	190
DATE:	May 2013
SCALE:	AS SHOWN
DRAWN BY:	WNR
DESIGNED BY:	WNR
CHECKED BY:	RW

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Sample Location Map

Figure 2

TABLES

Arthur Kill Correctional Facility - New Firing Range

Table 1 - Soil Boring Sample Log

Location ID	Depth	Date	Time	Samples Collected
NFR-1	0-6 inches	3/25/2013	830	tot Pb, MS, MSD
	6-12 inches		835	tot Pb
	1-2 feet		840	tot Pb
NFR-2	0-6 inches	3/25/2013	845	tot Pb
	6-12 inches		850	tot Pb
	1-2 feet		855	tot Pb
NFR-3	0-6 inches	3/25/2013	900	tot Pb
	6-12 inches		905	tot Pb
	1-2 feet		910	tot Pb
NFR-4	0-6 inches	3/25/2013	920	tot Pb
	6-12 inches		925	tot Pb
	1-2 feet		930	tot Pb
NFR-5	0-6 inches	3/25/2013	940	tot Pb
	6-12 inches		945	tot Pb
	1-2 feet		950	tot Pb
NFR-6	0-6 inches	3/25/2013	1000	tot Pb
	6-12 inches		1005	tot Pb
	1-2 feet		1010	tot Pb
NFR-7	0-6 inches	3/25/2013	1020	tot Pb
	6-12 inches		1025	tot Pb
	1-2 feet		1030	tot Pb
NFR-8	0-6 inches	3/25/2013	1045	tot Pb, MS, MSD
	6-12 inches		1050	tot Pb
	1-2 feet		1055	tot Pb
NFR-9	0-6 inches	3/25/2013	1100	tot Pb
	6-12 inches		1105	tot Pb
	1-2 feet		1110	tot Pb
NFR-10	0-6 inches	3/25/2013	1120	tot Pb
	6-12 inches		1125	tot Pb
	1-2 feet		1130	tot Pb
NFR-11	0-6 inches	3/25/2013	1135	tot Pb
	6-12 inches		1140	tot Pb
	1-2 feet		1145	tot Pb
NFR-12	0-6 inches	3/25/2013	1150	tot Pb
	6-12 inches		1155	tot Pb
	1-2 feet		1200	tot Pb
NFR-13	0-6 inches	3/25/2013	1230	tot Pb
	6-12 inches		1235	tot Pb
	1-2 feet		1240	tot Pb
NFR-14	0-6 inches	3/25/2013	1250	tot Pb
	6-12 inches		1255	tot Pb
	1-2 feet		1300	tot Pb

Arthur Kill Correctional Facility - New Firing Range
Table 1 - Soil Boring Sample Log

NFR-15	0-6 inches	3/25/2013	1315	tot Pb, SVOCs
	6-12 inches		1320	tot Pb
	1-5 feet		1330	tot Pb, SVOCs, MS+MSD
NFR-16	0-6 inches	3/25/2013	1340	tot Pb, SVOCs
	6-12 inches		1345	tot Pb
	1-5 feet		1350	tot Pb, SVOCs
NFR-17	0-6 inches	3/25/2013	1355	tot Pb
	6-12 inches		1400	tot Pb
	1-5 feet		1405	tot Pb, SVOCs
NFR-18	0-6 inches	3/25/2013	1410	tot Pb
	6-12 inches		1415	tot Pb
	1-2 feet		1420	tot Pb
NFR-19	0-6 inches	3/25/2013	1425	tot Pb
	6-12 inches		1430	tot Pb
	1-2 feet		1435	tot Pb
NFR-20	0-6 inches	3/25/2013	1445	tot Pb
	6-12 inches		1450	tot Pb
	1-2 feet		1455	tot Pb
NFR-21	0-6 inches	3/25/2013	1500	tot Pb
	6-12 inches		1505	tot Pb
	1-2 feet		1510	tot Pb
NFR-22	0-6 inches	3/25/2013	1520	tot Pb, MS+MSD
	6-12 inches		1525	tot Pb
	1-2 feet		1530	tot Pb
NFR-23	0-6 inches	3/25/2013	1535	tot Pb
	6-12 inches		1540	tot Pb
	1-5 feet		1545	tot Pb, SVOCs
NFR-24	0-6 inches	3/25/2013	1550	tot Pb
	6-12 inches		1555	tot Pb
	1-2 feet		1600	tot Pb
NFR-25	0-6 inches	3/25/2013	1605	tot Pb
	6-12 inches		1610	tot Pb
	1-2 feet		1615	tot Pb
NFR-26	0-6 inches	3/26/2013	820	tot Pb
	6-12 inches		825	tot Pb
	1-5 feet		830	tot Pb, SVOCs
NFR-27	0-6 inches	3/26/2013	840	tot Pb
	6-12 inches		845	tot Pb
	1-2 feet		850	tot Pb
NFR-28	0-6 inches	3/26/2013	855	tot Pb
	6-12 inches		900	tot Pb
	1-2 feet		905	tot Pb

Arthur Kill Correctional Facility - New Firing Range

Table 1 - Soil Boring Sample Log

NFR-29	0-6 inches	3/26/2013	915	tot Pb
	6-12 inches		920	tot Pb
	1-5 feet		925	tot Pb
NFR-30	0-6 inches	3/26/2013	930	tot Pb, MS+MSD
NFR-31	0-6 inches	3/26/2013	940	tot Pb, TCLP Pb
NFR-32	0-6 inches	3/26/2013	945	tot Pb
TRAP*	0-6 inches	3/26/2013	1030	tot Pb, TCLP Pb
WOOD 1*	NA	3/26/2013	1200	tot Pb, TCLP Pb
wOOD 2*	NA	3/26/2013	1215	tot Pb, TCLP Pb
WOOD 3*	NA	3/26/2013	1230	tot Pb, TCLP Pb

Note: samples with asterisk* are non-soil samples

Arthur Kill Correctional Facility - New Firing Range
Table 2 - Total Lead Data for Soil Borings

	Sample Depth		
Sample ID	0-6 inches	6-12 inches	One-to two-feet*
NFR-1	86.10	55.1	8.4
NFR-2	50.70	74.3	12.3
NFR-3	54.20	24.5	3.8
NFR-4	167.00	36.8	4.4
NFR-5	105	56.3	23.1
NFR-6	49.7	45.8	5.6
NFR-7	93.9	52.6	17.4
NFR-8	79	36.7	4.5
NFR-9	82.7	105	15.2
NFR-10	178	65.3	14.5
NFR-11	76.4	45.5	28.3
NFR-12	85	33.6	9.6
NFR-13	100	53.5	36.6
NFR-14	117	66.5	29.9
NFR-15*	106	95.6	12.4*
NFR-16*	69.2	89.4	16.5*
NFR-17*	84.3	74.1	23.8*
NFR-18	67.8	118	24.8
NFR-19	49.5	18.6	11.3
NFR-20	39.1	64.3	28
NFR-21	61.8	53.7	19.5
NFR-22	110	67.7	23.2
NFR-23	65.6	15	9.8
NFR-24	79.5	47.9	22
NFR-25	92.3	124	78
NFR-26*	84	89	75.1*
NFR-27	143	66.4	67.1
NFR-28	104	72.8	77.1
NFR-29	99.5	115	82.2
NFR-30	1280	NA	NA
NFR-31	70.5	NA	NA
NFR-31 TCLP	4.6	NA	NA
NFR-32	64.2	NA	NA

All concentrations in mg/kg or ppm
NA = sampling location not accessible by drill rig so 0-6 inch sample was collected manually
* = deep sample from location with asterisk are from the one- to five-foot interval
denotes exceedence of "Unrestricted Use" SCO (63 mg/kg) for total lead
denotes exceedence of "Residential Use" SCO (400 mg/kg) for total lead

Average	124.99	64.24	22.64
% exceedence	81.25	51.72	17.24
% exceedence	3.13	0.00	0.00

Arthur Kill Correctional Facility - New Firing Range

Table 3 - Total and TCLP Lead Data for Non-soil Materials

SAMPLE ID	RESULT (mg/kg)	Description
TRAP	113000	combined shredded tires and ballistics from bullet trap in new firing range
TRAP TCLP	962	TCLP results from combined shredded tires and ballistics
WOOD 1	870	12-inch diameter black locust (robinia pseudoacacia) on the inside berm of the old firing range
WOOD 1 TCLP	3.3B	TCLP results from WOOD 1
WOOD 2	39.4	4-inch diameter box elder (acer negundo) on the target end of the old firing range
WOOD 2 TCLP	0.042B	TCLP results for WOOD 2
WOOD 3	904	splintered fragments from timbers across the front of the new firing range target area
WOOD 3 TCLP	53.3B	TCLP results for WOOD 3

Arthur Kill Correctional Facility - New Firing Range Investigation
Table 4 - Semivolatile Organic Compounds Data for Soil Borings

ANALYTE	NYSDEC 6NYCRR Part 375-6 Soil Cleanup Objective		Sample ID (Depth[1]) - All Concentrations in µg/kg or parts per billion							
	Residential	Unrestricted	Units	NFR-15 (0-6)	NFR-15 (1-5)	NFR-16 (0-6)	NFR-16 (1-5)	NFR-17 (1-5)	NFR-23 (1-2)	NFR-26 (1-5)
2,4,5-Trichlorophenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NS	NS	µg/kg	**12 J**	ND	**17 J**	ND	ND	ND	**78 J**
2-Methylphenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
3-Nitroaniline	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
4-Chloro-3-methylphenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
4-Methylphenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	100,000	20,000	µg/kg	**89 J**	ND	**110 J**	**13 J**	**3 J**	ND	**160 J**
Acenaphthylene	100,000	100,000	µg/kg	ND	ND	ND	ND	ND	ND	**43 J**
Acetophenone	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Anthracene	100,000	100,000	µg/kg	**210 J**	ND	**280 J**	**51 J**	**9 J**	ND	**370 J**
Atrazine	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Benzaldehyde	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Benzo(a)anthracene	1,000	1,000	µg/kg	**720 J**	ND	**680 J**	**250**	**32 J**	**32 J**	**1,000**
Benzo(a)pyrene	1,000	1,000	µg/kg	**710 J**	**23 J**	**660 J**	**280**	**40 J**	**34 J**	**870 J**
Benzo(b)fluoranthene	1,000	1,000	µg/kg	**1,000**	**43 J**	**770 J**	**340**	**84 J**	**64 J**	**1,000**
Benzo(g,h,i)perylene	100,000	100,000	µg/kg	**210 J**	**16 J**	**210 J**	**81 J**	**13 J**	**8 J**	**180 J**
Benzo(k)fluoranthene	1,000	800	µg/kg	**340 J**	**14 J**	**400 J**	**200**	**42 J**	**27 J**	**650 J**
Biphenyl	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
bis (2-chloroisopropyl) ether	NS	NS	µg/kg	ND	ND *	ND *	ND *	ND *	ND *	ND *
Bis(2-chloroethoxy)methane	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl) phthalate	NS	NS	µg/kg	ND	ND	ND	ND	840	ND	ND
Butyl benzyl phthalate	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Caprolactam	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Carbazole	NS	NS	µg/kg	**85 J**	ND	**110 J**	ND	**13 J**	ND	**130 J**
Chrysene	1,000	1,000	µg/kg	**700 J**	**28 J**	**650 J**	**270**	**86 J**	**37 J**	**920 J**
Dibenz(a,h)anthracene	330	330	µg/kg	**75 J**	ND	**65 J**	**29 J**	**5 J**	ND	**61 J**
Dibenzofuran	14,000	7,000	µg/kg	**43 J**	ND	**51 J**	ND	ND	ND	**99 J**
Diethyl phthalate	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Di-n-butyl phthalate	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Di-n-octyl phthalate	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100,000	100,000	µg/kg	**1,500**	**28 J**	**1,400**	**390**	**170 J**	**38 J**	**1,900**
Fluorene	100,000	30,000	µg/kg	**56 J**	ND	**93 J**	**11 J**	ND	ND	**160 J**
Hexachlorobenzene	330	330	µg/kg	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	500	500	µg/kg	**200 J**	**12 J**	**190 J**	**87 J**	**13 J**	**8 J**	**190 J**
Isophorone	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Naphthalene	100,000	12,000	µg/kg	ND	ND	**88 J**	ND	ND	ND	**150 J**
Nitrobenzene	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodi-n-propylamine	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
N-Nitrosodiphenylamine	NS	NS	µg/kg	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	800	800	µg/kg	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100,000	100,000	µg/kg	**1,200**	**7 J**	**960**	**150 J**	**81 J**	**9 J**	**1,500**
Phenol	100,000	330	µg/kg	ND	ND	ND	ND	ND	ND	**180 J**
Pyrene	100,000	100,000	µg/kg	**1,200**	**25 J**	**1,100**	**320**	**110 J**	**33 J**	**1,500**
Tentatively Identified Compounds (TICs)										
2,4,6-Tribromophenol	NS	NS	µg/kg	**990**	**1,600**	**1,200**	**1,700**	**1,700**	**1,500**	**900**
2-Fluorobiphenyl	NS	NS	µg/kg	**1,300**	**1,700**	**1,500**	**1,700**	**1,700**	**1,600**	**1,700**
2-Fluorophenol	NS	NS	µg/kg	**1,400**	**1,700**	**1,600**	**1,600**	**1,700**	**1,600**	**1,700**
Nitrobenzene-d5	NS	NS	µg/kg	**1,300**	**1,800**	**1,500**	**1,700**	**1,800**	**1,600**	**1,700**
Phenol-d5	NS	NS	µg/kg	**1,400**	**1,800**	**1,600**	**1,700**	**1,800**	**1,600**	**1,800**
p-Terphenyl-d14	NS	NS	µg/kg	**1,300**	**1,800**	**1,500**	**1,700**	**1,700**	**1,600**	**1,600**

1. Sample Depths: (0-6) = surface to six inches; (1-2) = one to two feet; (1-5) = one to five feet
2. NS = No Soil Cleanup Objectives Listed for these Compounds in 6NYCRR Part 375-6
3. All detected compounds are listed in **bold font**
4. Detections exceeding either of the listed Soil Cleanuo Objectives are shaded
5. ND = Compound Not Detected

APPENDIX A

Analytical Laboratory Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-35121-1
Client Project/Site: Former Arthur Kill Correctional Facility

For:
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212

Attn: Mr. Rory Woodmansee

Authorized for release by:
4/4/2013 11:00:24 AM
Joe Giacomazza
Project Administrator
joe.giacomazza@testamericainc.com

Designee for

Sally Hoffman
Project Manager II
sally.hoffman@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

Metals

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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)

Job ID: 480-35121-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-35121-1

Receipt
The samples were received on 3/28/2013 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.8º C, 4.3º C and 4.4º C.

Metals
Method(s) 6010B: The Matrix Spike (MS) recovery for total lead in batch 480-109688 was outside control limits. Non-homgeneity is suspected. The associated Laboratory Control Sample (LCS) met acceptance criteria, therefore no corrective action was necessary.

No other analytical or quality issues were noted.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-1 (0-6) — Lab Sample ID: 480-35121-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	86.1		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-1 (6-12) — Lab Sample ID: 480-35121-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	55.1		1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-1 (1-2) — Lab Sample ID: 480-35121-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	8.4		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-2 (0-6) — Lab Sample ID: 480-35121-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	50.7		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-2 (6-12) — Lab Sample ID: 480-35121-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	74.3		1.2	0.28	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-2 (1-2) — Lab Sample ID: 480-35121-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	12.3		1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-3 (0-6) — Lab Sample ID: 480-35121-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	54.2		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-3 (6-12) — Lab Sample ID: 480-35121-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	24.5		1.3	0.30	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-3 (1-2) — Lab Sample ID: 480-35121-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	3.8		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-4 (0-6) — Lab Sample ID: 480-35121-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	167		1.2	0.30	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-4 (6-12) — Lab Sample ID: 480-35121-11

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-4 (6-12) (Continued) — Lab Sample ID: 480-35121-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	36.8		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-4 (1-2) — Lab Sample ID: 480-35121-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	4.4		1.0	0.25	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-5 (0-6) — Lab Sample ID: 480-35121-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	105		1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-5 (6-12) — Lab Sample ID: 480-35121-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	56.3		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-5 (1-2) — Lab Sample ID: 480-35121-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	23.1		1.0	0.25	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-6 (0-6) — Lab Sample ID: 480-35121-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	49.7		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-6 (6-12) — Lab Sample ID: 480-35121-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	45.8		0.97	0.23	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-6 (1-2) — Lab Sample ID: 480-35121-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	5.6		1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-7 (0-6) — Lab Sample ID: 480-35121-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	93.9		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-7 (6-12) — Lab Sample ID: 480-35121-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	52.6		1.2	0.30	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-1 (0-6)

Lab Sample ID: 480-35121-1

Date Collected: 03/25/13 08:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 92.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	86.1		1.1	0.27	mg/Kg	☼	03/28/13 12:30	03/28/13 21:42	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-1 (6-12)

Lab Sample ID: 480-35121-2

Date Collected: 03/25/13 08:35
Date Received: 03/28/13 01:30

Matrix: Solid
Percent Solids: 88.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	55.1		1.1	0.26	mg/Kg	☼	03/28/13 12:30	03/28/13 21:57	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-1 (1-2)

Lab Sample ID: 480-35121-3

Date Collected: 03/25/13 08:40
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	8.4		1.2	0.29	mg/Kg	☼	03/28/13 12:30	03/28/13 22:00	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-2 (0-6)
Date Collected: 03/25/13 08:45
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35121-4
Matrix: Solid
Percent Solids: 84.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	50.7		1.2	0.29	mg/Kg	☼	03/28/13 12:30	03/28/13 22:02	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-2 (6-12)

Lab Sample ID: 480-35121-5

Date Collected: 03/25/13 08:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 89.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	74.3		1.2	0.28	mg/Kg	☼	03/28/13 12:30	03/28/13 22:04	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-2 (1-2)
Date Collected: 03/25/13 08:55
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35121-6
Matrix: Solid
Percent Solids: 87.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	12.3		1.1	0.26	mg/Kg	☼	03/28/13 12:30	03/28/13 22:07	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-3 (0-6)
Date Collected: 03/25/13 09:00
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35121-7
Matrix: Solid
Percent Solids: 89.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	54.2		1.1	0.27	mg/Kg	☼	03/28/13 12:30	03/28/13 22:10	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-3 (6-12)

Lab Sample ID: 480-35121-8

Date Collected: 03/25/13 09:05
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	24.5		1.3	0.30	mg/Kg	☼	03/28/13 12:30	03/28/13 22:17	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-3 (1-2)

Lab Sample ID: 480-35121-9

Date Collected: 03/25/13 09:10
Date Received: 03/28/13 01:30

Matrix: Solid
Percent Solids: 89.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	3.8		1.1	0.27	mg/Kg	☼	03/28/13 12:30	03/28/13 22:20	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-4 (0-6)

Date Collected: 03/25/13 09:20
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35121-10

Matrix: Solid
Percent Solids: 87.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	167		1.2	0.30	mg/Kg	☼	03/28/13 12:30	03/28/13 22:22	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-4 (6-12)

Lab Sample ID: 480-35121-11

Date Collected: 03/25/13 09:25
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	36.8		1.1	0.27	mg/Kg	☼	03/28/13 12:30	03/28/13 22:24	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-4 (1-2)

Lab Sample ID: 480-35121-12

Date Collected: 03/25/13 09:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 94.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.4		1.0	0.25	mg/Kg	☼	03/28/13 12:30	03/28/13 22:27	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-5 (0-6)

Lab Sample ID: 480-35121-13

Date Collected: 03/25/13 09:40
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	105		1.1	0.26	mg/Kg	☼	03/28/13 12:30	03/28/13 22:29	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-5 (6-12)

Lab Sample ID: 480-35121-14

Date Collected: 03/25/13 09:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 84.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	56.3		1.2	0.29	mg/Kg	☼	03/28/13 12:30	03/28/13 22:32	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-5 (1-2)

Lab Sample ID: 480-35121-15

Date Collected: 03/25/13 09:50
Date Received: 03/28/13 01:30

Matrix: Solid
Percent Solids: 88.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	23.1		1.0	0.25	mg/Kg	☼	03/28/13 12:30	03/28/13 22:34	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-6 (0-6)

Lab Sample ID: 480-35121-16

Date Collected: 03/25/13 10:00
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	49.7		1.1	0.27	mg/Kg	☼	03/28/13 12:30	03/28/13 22:37	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-6 (6-12)

Lab Sample ID: 480-35121-17

Date Collected: 03/25/13 10:05
Date Received: 03/28/13 01:30

Matrix: Solid
Percent Solids: 90.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	45.8		0.97	0.23	mg/Kg	☼	03/28/13 12:30	03/28/13 22:39	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-6 (1-2)

Date Collected: 03/25/13 10:10
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35121-18

Matrix: Solid
Percent Solids: 89.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	5.6		1.1	0.26	mg/Kg	☼	03/28/13 12:30	03/28/13 22:46	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-7 (0-6)

Lab Sample ID: 480-35121-19

Date Collected: 03/25/13 10:20
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 84.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	93.9		1.1	0.27	mg/Kg	☼	03/28/13 12:30	03/28/13 22:49	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-7 (6-12)

Lab Sample ID: 480-35121-20

Date Collected: 03/25/13 10:25
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	52.6		1.2	0.30	mg/Kg	☼	03/28/13 12:30	03/28/13 22:51	1

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-109688/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 109890 — **Prep Batch: 109688**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.92	0.22	mg/Kg		03/28/13 12:30	03/28/13 21:37	1

Lab Sample ID: LCSSRM 480-109688/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 109890 — **Prep Batch: 109688**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	136	138.2		mg/Kg		101.7	73.1 - 127.2

Lab Sample ID: 480-35121-1 MS — **Client Sample ID: NFR-1 (0-6)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 109890 — **Prep Batch: 109688**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	86.1		47.0	111.5	F	mg/Kg	☼	54	75 - 125

Lab Sample ID: 480-35121-1 MSD — **Client Sample ID: NFR-1 (0-6)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 109890 — **Prep Batch: 109688**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	86.1		44.5	127.0		mg/Kg	☼	92	75 - 125	13	20

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Metals

Prep Batch: 109688

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35121-1	NFR-1 (0-6)	Total/NA	Solid	3050B	
480-35121-1 MS	NFR-1 (0-6)	Total/NA	Solid	3050B	
480-35121-1 MSD	NFR-1 (0-6)	Total/NA	Solid	3050B	
480-35121-2	NFR-1 (6-12)	Total/NA	Solid	3050B	
480-35121-3	NFR-1 (1-2)	Total/NA	Solid	3050B	
480-35121-4	NFR-2 (0-6)	Total/NA	Solid	3050B	
480-35121-5	NFR-2 (6-12)	Total/NA	Solid	3050B	
480-35121-6	NFR-2 (1-2)	Total/NA	Solid	3050B	
480-35121-7	NFR-3 (0-6)	Total/NA	Solid	3050B	
480-35121-8	NFR-3 (6-12)	Total/NA	Solid	3050B	
480-35121-9	NFR-3 (1-2)	Total/NA	Solid	3050B	
480-35121-10	NFR-4 (0-6)	Total/NA	Solid	3050B	
480-35121-11	NFR-4 (6-12)	Total/NA	Solid	3050B	
480-35121-12	NFR-4 (1-2)	Total/NA	Solid	3050B	
480-35121-13	NFR-5 (0-6)	Total/NA	Solid	3050B	
480-35121-14	NFR-5 (6-12)	Total/NA	Solid	3050B	
480-35121-15	NFR-5 (1-2)	Total/NA	Solid	3050B	
480-35121-16	NFR-6 (0-6)	Total/NA	Solid	3050B	
480-35121-17	NFR-6 (6-12)	Total/NA	Solid	3050B	
480-35121-18	NFR-6 (1-2)	Total/NA	Solid	3050B	
480-35121-19	NFR-7 (0-6)	Total/NA	Solid	3050B	
480-35121-20	NFR-7 (6-12)	Total/NA	Solid	3050B	
LCSSRM 480-109688/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-109688/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 109890

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35121-1	NFR-1 (0-6)	Total/NA	Solid	6010B	109688
480-35121-1 MS	NFR-1 (0-6)	Total/NA	Solid	6010B	109688
480-35121-1 MSD	NFR-1 (0-6)	Total/NA	Solid	6010B	109688
480-35121-2	NFR-1 (6-12)	Total/NA	Solid	6010B	109688
480-35121-3	NFR-1 (1-2)	Total/NA	Solid	6010B	109688
480-35121-4	NFR-2 (0-6)	Total/NA	Solid	6010B	109688
480-35121-5	NFR-2 (6-12)	Total/NA	Solid	6010B	109688
480-35121-6	NFR-2 (1-2)	Total/NA	Solid	6010B	109688
480-35121-7	NFR-3 (0-6)	Total/NA	Solid	6010B	109688
480-35121-8	NFR-3 (6-12)	Total/NA	Solid	6010B	109688
480-35121-9	NFR-3 (1-2)	Total/NA	Solid	6010B	109688
480-35121-10	NFR-4 (0-6)	Total/NA	Solid	6010B	109688
480-35121-11	NFR-4 (6-12)	Total/NA	Solid	6010B	109688
480-35121-12	NFR-4 (1-2)	Total/NA	Solid	6010B	109688
480-35121-13	NFR-5 (0-6)	Total/NA	Solid	6010B	109688
480-35121-14	NFR-5 (6-12)	Total/NA	Solid	6010B	109688
480-35121-15	NFR-5 (1-2)	Total/NA	Solid	6010B	109688
480-35121-16	NFR-6 (0-6)	Total/NA	Solid	6010B	109688
480-35121-17	NFR-6 (6-12)	Total/NA	Solid	6010B	109688
480-35121-18	NFR-6 (1-2)	Total/NA	Solid	6010B	109688
480-35121-19	NFR-7 (0-6)	Total/NA	Solid	6010B	109688
480-35121-20	NFR-7 (6-12)	Total/NA	Solid	6010B	109688
LCSSRM 480-109688/2-A	Lab Control Sample	Total/NA	Solid	6010B	109688
MB 480-109688/1-A	Method Blank	Total/NA	Solid	6010B	109688

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

General Chemistry

Analysis Batch: 109706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35121-1	NFR-1 (0-6)	Total/NA	Solid	Moisture	
480-35121-1 MS	NFR-1 (0-6)	Total/NA	Solid	Moisture	
480-35121-1 MSD	NFR-1 (0-6)	Total/NA	Solid	Moisture	
480-35121-2	NFR-1 (6-12)	Total/NA	Solid	Moisture	
480-35121-3	NFR-1 (1-2)	Total/NA	Solid	Moisture	
480-35121-4	NFR-2 (0-6)	Total/NA	Solid	Moisture	
480-35121-5	NFR-2 (6-12)	Total/NA	Solid	Moisture	
480-35121-6	NFR-2 (1-2)	Total/NA	Solid	Moisture	
480-35121-7	NFR-3 (0-6)	Total/NA	Solid	Moisture	
480-35121-8	NFR-3 (6-12)	Total/NA	Solid	Moisture	
480-35121-9	NFR-3 (1-2)	Total/NA	Solid	Moisture	
480-35121-10	NFR-4 (0-6)	Total/NA	Solid	Moisture	
480-35121-11	NFR-4 (6-12)	Total/NA	Solid	Moisture	
480-35121-12	NFR-4 (1-2)	Total/NA	Solid	Moisture	
480-35121-13	NFR-5 (0-6)	Total/NA	Solid	Moisture	
480-35121-14	NFR-5 (6-12)	Total/NA	Solid	Moisture	
480-35121-15	NFR-5 (1-2)	Total/NA	Solid	Moisture	
480-35121-16	NFR-6 (0-6)	Total/NA	Solid	Moisture	
480-35121-17	NFR-6 (6-12)	Total/NA	Solid	Moisture	
480-35121-18	NFR-6 (1-2)	Total/NA	Solid	Moisture	
480-35121-19	NFR-7 (0-6)	Total/NA	Solid	Moisture	
480-35121-20	NFR-7 (6-12)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-1 (0-6)

Lab Sample ID: 480-35121-1
Date Collected: 03/25/13 08:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 92.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 21:42	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-1 (6-12)

Lab Sample ID: 480-35121-2
Date Collected: 03/25/13 08:35
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 21:57	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-1 (1-2)

Lab Sample ID: 480-35121-3
Date Collected: 03/25/13 08:40
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:00	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-2 (0-6)

Lab Sample ID: 480-35121-4
Date Collected: 03/25/13 08:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 84.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:02	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-2 (6-12)

Lab Sample ID: 480-35121-5
Date Collected: 03/25/13 08:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 89.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:04	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-2 (1-2)

Lab Sample ID: 480-35121-6
Date Collected: 03/25/13 08:55
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:07	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-3 (0-6)

Lab Sample ID: 480-35121-7
Date Collected: 03/25/13 09:00
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:10	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-3 (6-12)

Lab Sample ID: 480-35121-8
Date Collected: 03/25/13 09:05
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:17	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-3 (1-2)

Lab Sample ID: 480-35121-9
Date Collected: 03/25/13 09:10
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 89.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:20	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-4 (0-6)

Lab Sample ID: 480-35121-10
Date Collected: 03/25/13 09:20
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:22	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-4 (6-12)

Lab Sample ID: 480-35121-11
Date Collected: 03/25/13 09:25
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:24	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-4 (1-2)

Lab Sample ID: 480-35121-12
Date Collected: 03/25/13 09:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 94.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:27	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-5 (0-6)

Lab Sample ID: 480-35121-13
Date Collected: 03/25/13 09:40
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:29	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-5 (6-12)

Lab Sample ID: 480-35121-14
Date Collected: 03/25/13 09:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 84.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:32	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-5 (1-2)

Lab Sample ID: 480-35121-15
Date Collected: 03/25/13 09:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:34	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Client Sample ID: NFR-6 (0-6)

Lab Sample ID: 480-35121-16
Date Collected: 03/25/13 10:00
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:37	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-6 (6-12)

Lab Sample ID: 480-35121-17
Date Collected: 03/25/13 10:05
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:39	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-6 (1-2)

Lab Sample ID: 480-35121-18
Date Collected: 03/25/13 10:10
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 89.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:46	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-7 (0-6)

Lab Sample ID: 480-35121-19
Date Collected: 03/25/13 10:20
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 84.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:49	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-7 (6-12)

Lab Sample ID: 480-35121-20
Date Collected: 03/25/13 10:25
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109688	03/28/13 12:30	SS	TAL BUF
Total/NA	Analysis	6010B		1	109890	03/28/13 22:51	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-13
Georgia	State Program	4	N/A	03-31-13 *
Georgia	State Program	4	956	06-30-13
Georgia	State Program	4	956	06-30-13
Illinois	NELAP	5	200003	09-30-13
Iowa	State Program	7	374	03-01-13 *
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-13 *
Louisiana	NELAP	6	02031	06-30-13
Maine	State Program	1	NY00044	12-04-13
Maryland	State Program	3	294	03-31-13 *
Massachusetts	State Program	1	M-NY044	06-30-13
Michigan	State Program	5	9937	04-01-13 *
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-13
New Hampshire	NELAP	1	2337	11-17-13
New Jersey	NELAP	2	NY455	06-30-13
New York	NELAP	2	10026	03-31-13 *
North Dakota	State Program	8	R-176	03-31-13 *
Oklahoma	State Program	6	9421	08-31-13
Oregon	NELAP	10	NY200003	06-09-13
Pennsylvania	NELAP	3	68-00281	07-31-13
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-13 *
Texas	NELAP	6	T104704412-11-2	07-31-13
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-13
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-13

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

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 BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35121-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-35121-1	NFR-1 (0-6)	Solid	03/25/13 08:30	03/28/13 01:30
480-35121-2	NFR-1 (6-12)	Solid	03/25/13 08:35	03/28/13 01:30
480-35121-3	NFR-1 (1-2)	Solid	03/25/13 08:40	03/28/13 01:30
480-35121-4	NFR-2 (0-6)	Solid	03/25/13 08:45	03/28/13 01:30
480-35121-5	NFR-2 (6-12)	Solid	03/25/13 08:50	03/28/13 01:30
480-35121-6	NFR-2 (1-2)	Solid	03/25/13 08:55	03/28/13 01:30
480-35121-7	NFR-3 (0-6)	Solid	03/25/13 09:00	03/28/13 01:30
480-35121-8	NFR-3 (6-12)	Solid	03/25/13 09:05	03/28/13 01:30
480-35121-9	NFR-3 (1-2)	Solid	03/25/13 09:10	03/28/13 01:30
480-35121-10	NFR-4 (0-6)	Solid	03/25/13 09:20	03/28/13 01:30
480-35121-11	NFR-4 (6-12)	Solid	03/25/13 09:25	03/28/13 01:30
480-35121-12	NFR-4 (1-2)	Solid	03/25/13 09:30	03/28/13 01:30
480-35121-13	NFR-5 (0-6)	Solid	03/25/13 09:40	03/28/13 01:30
480-35121-14	NFR-5 (6-12)	Solid	03/25/13 09:45	03/28/13 01:30
480-35121-15	NFR-5 (1-2)	Solid	03/25/13 09:50	03/28/13 01:30
480-35121-16	NFR-6 (0-6)	Solid	03/25/13 10:00	03/28/13 01:30
480-35121-17	NFR-6 (6-12)	Solid	03/25/13 10:05	03/28/13 01:30
480-35121-18	NFR-6 (1-2)	Solid	03/25/13 10:10	03/28/13 01:30
480-35121-19	NFR-7 (0-6)	Solid	03/25/13 10:20	03/28/13 01:30
480-35121-20	NFR-7 (6-12)	Solid	03/25/13 10:25	03/28/13 01:30

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM: Hoffman, Sally	Carrier Tracking No(s)	COC No: 480-34278-8744 1
Client Contact: Mr. Rory Woodmansee	Phone	E-Mail: sally.hoffman@testamericainc.com		Page: Page 1 of 13
Company: C&S Engineers, Inc.				Job #
Address: 499 Col Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not required			
Email: rwoodmansee@cscos.com	WO #			
Project Name: Former Arthur Kill Correctional Facility	Project #: 48006338			
Site	SSOW#			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - Lead	8270C - TCL SVOA - OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
NFR-1 (0-6)	3/25/13	0830		Solid			X			
NFR-1 (0-6) MS		0830		Solid			X			
NFR-1 (0-6) MSD		0830		Solid			X			
NFR-1 (6-12)		0835		Solid			X			
NFR-1 (1-2)		0840		Solid			X			
NFR-2 (0-6)		0845		Solid			X			
NFR-2 (6-12)		0850		Solid			X			
NFR-2 (1-2)		0855		Solid			X			
NFR-3 (0-6)		0900		Solid			X			
NFR-3 (6-12)		0905		Solid			X			
NFR-3 (1-2)		0910		Solid			X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: CAPB ASP05 deliverable

Empty Kit Relinquished by	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Rory Woodman	3/27/13 1115	C&S	R Engelke	3-27-13 11:15	SYA
Relinquished by: RE	Date/Time: 3-27-13, 1900	Company: SYA	Received by: [illegible]	Date/Time: 3/28/13 0130	Company: TA
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:

Custody Seals Intact: Δ Yes Δ No
Custody Seal No.:
Cooler Temperature(s) °C and Other Remarks: 3.8 4.3 4.4 ICE#1

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM: Hoffman, Sally	Carrier Tracking No(s)	COC No: 480-34278-8744 2
Client Contact: Mr. Rory Woodmansee	Phone	E-Mail: sally.hoffman@testamericainc.com		Page: Page 2 of 13
Company: C&S Engineers, Inc				Job #
Address: 499 Col Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not required			
Email: rwoodmansee@cscos.com	WO #			
Project Name: Former Arthur Kill Correctional Facility	Project #: 48006338			
Site	SSOW#			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - Lead	8270C - TCL SVOA - OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
NFR-4 (0-6)	3/25/13	0920		Solid			X			
NFR-4 (6-12)		0925		Solid			X			
NFR-4 (1-2)		0930		Solid			X			
NFR-5 (0-6)		0940		Solid			X			
NFR-5 (6-12)		0945		Solid			X			
NFR-5 (1-2)		0950		Solid			X			
NFR-6 (0-6)		1000		Solid			X			
NFR-6 (6-12)		1005		Solid			X			
NFR-6 (1-2)		1010		Solid			X			
NFR-7 (0-6)		1020		Solid			X			
NFR-7 (6-12)		1025		Solid			X			

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Rory Woodmansee	3/27/13 1115	CCS	R. English	3-27-13, 1115	Syr
RE	3-27-13 1800	Sy	[illegible]	3/28/13 0150	TA

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.8 4.3 4.4 ICE #1

Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-35121-1

Login Number: 35121
List Number: 1
Creator: Janish, Carl

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is 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 sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	C+S
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-35123-1
Client Project/Site: Former Arthur Kill Correctional Facility

For:
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212

Attn: Mr. Rory Woodmansee

Authorized for release by:
4/4/2013 11:13:09 AM
Joe Giacomazza
Project Administrator
joe.giacomazza@testamericainc.com

Designee for

Sally Hoffman
Project Manager II
sally.hoffman@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Qualifiers

Metals

Qualifier	Qualifier Description
F	MS or MSD exceeds the control limits

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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)

Case Narrative

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Job ID: 480-35123-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-35123-1

Receipt
The samples were received on 3/28/2013 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.8º C, 4.3º C and 4.4º C.

Metals
Method(s) 6010B: The Matrix Spike (MS) recovery for total lead in batch 480-109669 was outside control limits. Non-homogeneity is suspected. The associated Laboratory Control Sample (LCS) met acceptance criteria, therefore no corrective action was necessary.

No other analytical or quality issues were noted.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-7 (1-2) — Lab Sample ID: 480-35123-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	17.4		1.0	0.25	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-8 (0-6) — Lab Sample ID: 480-35123-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	79.0		1.1	0.28	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-8 (6-12) — Lab Sample ID: 480-35123-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	36.7		1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-8 (1-2) — Lab Sample ID: 480-35123-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	4.5		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-9 (0-6) — Lab Sample ID: 480-35123-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	82.7		1.2	0.28	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-9 (6-12) — Lab Sample ID: 480-35123-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	105		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-9 (1-2) — Lab Sample ID: 480-35123-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	15.2		1.3	0.30	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-10 (0-6) — Lab Sample ID: 480-35123-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	178		1.0	0.25	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-10 (6-12) — Lab Sample ID: 480-35123-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	65.3		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-10 (1-2) — Lab Sample ID: 480-35123-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	14.5		1.2	0.28	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-11 (0-6) — Lab Sample ID: 480-35123-11

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-11 (0-6) (Continued) — Lab Sample ID: 480-35123-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	76.4		1.2	0.28	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-11 (6-12) — Lab Sample ID: 480-35123-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	45.5		1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-11 (1-2) — Lab Sample ID: 480-35123-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	28.3		1.1	0.25	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-12 (0-6) — Lab Sample ID: 480-35123-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	85.0		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-12 (6-12) — Lab Sample ID: 480-35123-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	33.6		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-12 (1-2) — Lab Sample ID: 480-35123-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	9.6		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-13 (0-6) — Lab Sample ID: 480-35123-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	100		1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-13 (6-12) — Lab Sample ID: 480-35123-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	53.5		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-13 (1-2) — Lab Sample ID: 480-35123-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	36.6		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-14 (0-6) — Lab Sample ID: 480-35123-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	117		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-7 (1-2)

Lab Sample ID: 480-35123-1

Date Collected: 03/25/13 10:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	17.4		1.0	0.25	mg/Kg	☼	03/28/13 12:30	03/28/13 20:32	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-8 (0-6)

Lab Sample ID: 480-35123-2

Date Collected: 03/25/13 10:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	79.0		1.1	0.28	mg/Kg	☼	03/28/13 12:30	03/28/13 20:34	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-8 (6-12)
Date Collected: 03/25/13 10:50
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35123-3
Matrix: Solid
Percent Solids: 88.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	36.7		1.1	0.26	mg/Kg	☼	03/28/13 12:30	03/28/13 20:46	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-8 (1-2)

Lab Sample ID: 480-35123-4

Date Collected: 03/25/13 10:55
Date Received: 03/28/13 01:30

Matrix: Solid
Percent Solids: 90.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.5		1.2	0.29	mg/Kg	☼	03/28/13 12:30	03/28/13 20:53	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-9 (0-6)
Date Collected: 03/25/13 11:00
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35123-5
Matrix: Solid
Percent Solids: 92.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	82.7		1.2	0.28	mg/Kg	☼	03/28/13 12:30	03/28/13 20:55	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-9 (6-12)

Lab Sample ID: 480-35123-6

Date Collected: 03/25/13 11:05
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	105		1.2	0.29	mg/Kg	☼	03/28/13 12:30	03/28/13 20:57	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-9 (1-2)
Date Collected: 03/25/13 11:10
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35123-7
Matrix: Solid
Percent Solids: 87.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	15.2		1.3	0.30	mg/Kg	☼	03/28/13 12:30	03/28/13 21:00	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-10 (0-6)
Date Collected: 03/25/13 11:20
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35123-8
Matrix: Solid
Percent Solids: 92.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	178		1.0	0.25	mg/Kg	☼	03/28/13 12:30	03/28/13 21:02	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-10 (6-12)
Date Collected: 03/25/13 11:25
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35123-9
Matrix: Solid
Percent Solids: 87.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	65.3		1.1	0.27	mg/Kg	☼	03/28/13 12:30	03/28/13 21:05	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-10 (1-2)

Lab Sample ID: 480-35123-10

Date Collected: 03/25/13 11:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	14.5		1.2	0.28	mg/Kg	☼	03/28/13 12:30	03/28/13 21:07	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-11 (0-6)

Lab Sample ID: 480-35123-11

Date Collected: 03/25/13 11:35
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	76.4		1.2	0.28	mg/Kg	☼	03/28/13 12:30	03/28/13 21:09	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-11 (6-12)

Lab Sample ID: 480-35123-12

Date Collected: 03/25/13 11:40
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 85.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	45.5		1.1	0.26	mg/Kg	☼	03/28/13 12:30	03/28/13 21:12	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-11 (1-2)

Lab Sample ID: 480-35123-13

Date Collected: 03/25/13 11:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	28.3		1.1	0.25	mg/Kg	☼	03/28/13 12:30	03/28/13 21:14	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-12 (0-6)

Lab Sample ID: 480-35123-14

Date Collected: 03/25/13 11:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 91.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	85.0		1.1	0.27	mg/Kg	☼	03/28/13 12:30	03/28/13 21:21	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-12 (6-12)
Date Collected: 03/25/13 11:55
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35123-15
Matrix: Solid
Percent Solids: 87.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	33.6		1.2	0.29	mg/Kg	☼	03/28/13 12:30	03/28/13 21:23	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-12 (1-2)

Lab Sample ID: 480-35123-16

Date Collected: 03/25/13 12:00
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 91.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	9.6		1.1	0.27	mg/Kg	☼	03/28/13 12:30	03/28/13 21:26	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-13 (0-6)

Lab Sample ID: 480-35123-17

Date Collected: 03/25/13 12:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 92.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	100		1.1	0.26	mg/Kg	☼	03/28/13 12:30	03/28/13 21:28	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-13 (6-12)
Date Collected: 03/25/13 12:35
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35123-18
Matrix: Solid
Percent Solids: 85.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	53.5		1.1	0.27	mg/Kg	☼	03/28/13 12:30	03/28/13 21:30	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-13 (1-2)
Date Collected: 03/25/13 12:40
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35123-19
Matrix: Solid
Percent Solids: 88.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	36.6		1.1	0.27	mg/Kg	☼	03/28/13 12:30	03/28/13 21:33	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-14 (0-6)

Lab Sample ID: 480-35123-20

Date Collected: 03/25/13 12:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	117		1.2	0.29	mg/Kg	☼	03/28/13 12:30	03/28/13 21:35	1

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-109669/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 109898 — **Prep Batch: 109669**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.96	0.23	mg/Kg		03/28/13 12:30	03/28/13 20:27	1

Lab Sample ID: LCSSRM 480-109669/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 109898 — **Prep Batch: 109669**

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			136	147.4		mg/Kg		108.7	73.1 - 127.2		

Lab Sample ID: 480-35123-2 MS — **Client Sample ID: NFR-8 (0-6)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 109898 — **Prep Batch: 109669**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	79.0		46.3	138.1	F	mg/Kg	☼	128	75 - 125		

Lab Sample ID: 480-35123-2 MSD — **Client Sample ID: NFR-8 (0-6)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 109898 — **Prep Batch: 109669**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	79.0		44.5	127.1		mg/Kg	☼	108	75 - 125	8	20

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Metals

Prep Batch: 109669

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35123-1	NFR-7 (1-2)	Total/NA	Solid	3050B	
480-35123-2	NFR-8 (0-6)	Total/NA	Solid	3050B	
480-35123-2 MS	NFR-8 (0-6)	Total/NA	Solid	3050B	
480-35123-2 MSD	NFR-8 (0-6)	Total/NA	Solid	3050B	
480-35123-3	NFR-8 (6-12)	Total/NA	Solid	3050B	
480-35123-4	NFR-8 (1-2)	Total/NA	Solid	3050B	
480-35123-5	NFR-9 (0-6)	Total/NA	Solid	3050B	
480-35123-6	NFR-9 (6-12)	Total/NA	Solid	3050B	
480-35123-7	NFR-9 (1-2)	Total/NA	Solid	3050B	
480-35123-8	NFR-10 (0-6)	Total/NA	Solid	3050B	
480-35123-9	NFR-10 (6-12)	Total/NA	Solid	3050B	
480-35123-10	NFR-10 (1-2)	Total/NA	Solid	3050B	
480-35123-11	NFR-11 (0-6)	Total/NA	Solid	3050B	
480-35123-12	NFR-11 (6-12)	Total/NA	Solid	3050B	
480-35123-13	NFR-11 (1-2)	Total/NA	Solid	3050B	
480-35123-14	NFR-12 (0-6)	Total/NA	Solid	3050B	
480-35123-15	NFR-12 (6-12)	Total/NA	Solid	3050B	
480-35123-16	NFR-12 (1-2)	Total/NA	Solid	3050B	
480-35123-17	NFR-13 (0-6)	Total/NA	Solid	3050B	
480-35123-18	NFR-13 (6-12)	Total/NA	Solid	3050B	
480-35123-19	NFR-13 (1-2)	Total/NA	Solid	3050B	
480-35123-20	NFR-14 (0-6)	Total/NA	Solid	3050B	
LCSSRM 480-109669/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-109669/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 109898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35123-1	NFR-7 (1-2)	Total/NA	Solid	6010B	109669
480-35123-2	NFR-8 (0-6)	Total/NA	Solid	6010B	109669
480-35123-2 MS	NFR-8 (0-6)	Total/NA	Solid	6010B	109669
480-35123-2 MSD	NFR-8 (0-6)	Total/NA	Solid	6010B	109669
480-35123-3	NFR-8 (6-12)	Total/NA	Solid	6010B	109669
480-35123-4	NFR-8 (1-2)	Total/NA	Solid	6010B	109669
480-35123-5	NFR-9 (0-6)	Total/NA	Solid	6010B	109669
480-35123-6	NFR-9 (6-12)	Total/NA	Solid	6010B	109669
480-35123-7	NFR-9 (1-2)	Total/NA	Solid	6010B	109669
480-35123-8	NFR-10 (0-6)	Total/NA	Solid	6010B	109669
480-35123-9	NFR-10 (6-12)	Total/NA	Solid	6010B	109669
480-35123-10	NFR-10 (1-2)	Total/NA	Solid	6010B	109669
480-35123-11	NFR-11 (0-6)	Total/NA	Solid	6010B	109669
480-35123-12	NFR-11 (6-12)	Total/NA	Solid	6010B	109669
480-35123-13	NFR-11 (1-2)	Total/NA	Solid	6010B	109669
480-35123-14	NFR-12 (0-6)	Total/NA	Solid	6010B	109669
480-35123-15	NFR-12 (6-12)	Total/NA	Solid	6010B	109669
480-35123-16	NFR-12 (1-2)	Total/NA	Solid	6010B	109669
480-35123-17	NFR-13 (0-6)	Total/NA	Solid	6010B	109669
480-35123-18	NFR-13 (6-12)	Total/NA	Solid	6010B	109669
480-35123-19	NFR-13 (1-2)	Total/NA	Solid	6010B	109669
480-35123-20	NFR-14 (0-6)	Total/NA	Solid	6010B	109669
LCSSRM 480-109669/2-A	Lab Control Sample	Total/NA	Solid	6010B	109669
MB 480-109669/1-A	Method Blank	Total/NA	Solid	6010B	109669

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

General Chemistry

Analysis Batch: 109706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35123-1	NFR-7 (1-2)	Total/NA	Solid	Moisture	
480-35123-2	NFR-8 (0-6)	Total/NA	Solid	Moisture	
480-35123-2 MS	NFR-8 (0-6)	Total/NA	Solid	Moisture	
480-35123-2 MSD	NFR-8 (0-6)	Total/NA	Solid	Moisture	
480-35123-3	NFR-8 (6-12)	Total/NA	Solid	Moisture	
480-35123-4	NFR-8 (1-2)	Total/NA	Solid	Moisture	
480-35123-5	NFR-9 (0-6)	Total/NA	Solid	Moisture	
480-35123-6	NFR-9 (6-12)	Total/NA	Solid	Moisture	
480-35123-7	NFR-9 (1-2)	Total/NA	Solid	Moisture	
480-35123-8	NFR-10 (0-6)	Total/NA	Solid	Moisture	
480-35123-9	NFR-10 (6-12)	Total/NA	Solid	Moisture	
480-35123-10	NFR-10 (1-2)	Total/NA	Solid	Moisture	
480-35123-11	NFR-11 (0-6)	Total/NA	Solid	Moisture	
480-35123-12	NFR-11 (6-12)	Total/NA	Solid	Moisture	
480-35123-13	NFR-11 (1-2)	Total/NA	Solid	Moisture	
480-35123-14	NFR-12 (0-6)	Total/NA	Solid	Moisture	
480-35123-15	NFR-12 (6-12)	Total/NA	Solid	Moisture	
480-35123-16	NFR-12 (1-2)	Total/NA	Solid	Moisture	
480-35123-17	NFR-13 (0-6)	Total/NA	Solid	Moisture	
480-35123-18	NFR-13 (6-12)	Total/NA	Solid	Moisture	
480-35123-19	NFR-13 (1-2)	Total/NA	Solid	Moisture	
480-35123-20	NFR-14 (0-6)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-7 (1-2)

Lab Sample ID: 480-35123-1
Date Collected: 03/25/13 10:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 20:32	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-8 (0-6)

Lab Sample ID: 480-35123-2
Date Collected: 03/25/13 10:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 20:34	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-8 (6-12)

Lab Sample ID: 480-35123-3
Date Collected: 03/25/13 10:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 20:46	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-8 (1-2)

Lab Sample ID: 480-35123-4
Date Collected: 03/25/13 10:55
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 20:53	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-9 (0-6)

Lab Sample ID: 480-35123-5
Date Collected: 03/25/13 11:00
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 92.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 20:55	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-9 (6-12)

Lab Sample ID: 480-35123-6
Date Collected: 03/25/13 11:05
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 20:57	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-9 (1-2)

Lab Sample ID: 480-35123-7
Date Collected: 03/25/13 11:10
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:00	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-10 (0-6)

Lab Sample ID: 480-35123-8
Date Collected: 03/25/13 11:20
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:02	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-10 (6-12)

Lab Sample ID: 480-35123-9
Date Collected: 03/25/13 11:25
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:05	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-10 (1-2)

Lab Sample ID: 480-35123-10
Date Collected: 03/25/13 11:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:07	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-11 (0-6)

Lab Sample ID: 480-35123-11
Date Collected: 03/25/13 11:35
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:09	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-11 (6-12)

Lab Sample ID: 480-35123-12
Date Collected: 03/25/13 11:40
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:12	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-11 (1-2)

Lab Sample ID: 480-35123-13
Date Collected: 03/25/13 11:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:14	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-12 (0-6)

Lab Sample ID: 480-35123-14
Date Collected: 03/25/13 11:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:21	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-12 (6-12)

Lab Sample ID: 480-35123-15
Date Collected: 03/25/13 11:55
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:23	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Client Sample ID: NFR-12 (1-2)

Lab Sample ID: 480-35123-16
Date Collected: 03/25/13 12:00
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 91.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:26	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-13 (0-6)

Lab Sample ID: 480-35123-17
Date Collected: 03/25/13 12:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 92.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:28	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-13 (6-12)

Lab Sample ID: 480-35123-18
Date Collected: 03/25/13 12:35
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:30	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-13 (1-2)

Lab Sample ID: 480-35123-19
Date Collected: 03/25/13 12:40
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:33	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-14 (0-6)

Lab Sample ID: 480-35123-20
Date Collected: 03/25/13 12:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109669	03/28/13 12:30	JM	TAL BUF
Total/NA	Analysis	6010B		1	109898	03/28/13 21:35	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-13
Georgia	State Program	4	N/A	03-31-13 *
Georgia	State Program	4	956	06-30-13
Georgia	State Program	4	956	06-30-13
Illinois	NELAP	5	200003	09-30-13
Iowa	State Program	7	374	03-01-13 *
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-13 *
Louisiana	NELAP	6	02031	06-30-13
Maine	State Program	1	NY00044	12-04-13
Maryland	State Program	3	294	03-31-13 *
Massachusetts	State Program	1	M-NY044	06-30-13
Michigan	State Program	5	9937	04-01-13 *
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-13
New Hampshire	NELAP	1	2337	11-17-13
New Jersey	NELAP	2	NY455	06-30-13
New York	NELAP	2	10026	03-31-13 *
North Dakota	State Program	8	R-176	03-31-13 *
Oklahoma	State Program	6	9421	08-31-13
Oregon	NELAP	10	NY200003	06-09-13
Pennsylvania	NELAP	3	68-00281	07-31-13
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-13 *
Texas	NELAP	6	T104704412-11-2	07-31-13
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-13
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-13

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

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 BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35123-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-35123-1	NFR-7 (1-2)	Solid	03/25/13 10:30	03/28/13 01:30
480-35123-2	NFR-8 (0-6)	Solid	03/25/13 10:45	03/28/13 01:30
480-35123-3	NFR-8 (6-12)	Solid	03/25/13 10:50	03/28/13 01:30
480-35123-4	NFR-8 (1-2)	Solid	03/25/13 10:55	03/28/13 01:30
480-35123-5	NFR-9 (0-6)	Solid	03/25/13 11:00	03/28/13 01:30
480-35123-6	NFR-9 (6-12)	Solid	03/25/13 11:05	03/28/13 01:30
480-35123-7	NFR-9 (1-2)	Solid	03/25/13 11:10	03/28/13 01:30
480-35123-8	NFR-10 (0-6)	Solid	03/25/13 11:20	03/28/13 01:30
480-35123-9	NFR-10 (6-12)	Solid	03/25/13 11:25	03/28/13 01:30
480-35123-10	NFR-10 (1-2)	Solid	03/25/13 11:30	03/28/13 01:30
480-35123-11	NFR-11 (0-6)	Solid	03/25/13 11:35	03/28/13 01:30
480-35123-12	NFR-11 (6-12)	Solid	03/25/13 11:40	03/28/13 01:30
480-35123-13	NFR-11 (1-2)	Solid	03/25/13 11:45	03/28/13 01:30
480-35123-14	NFR-12 (0-6)	Solid	03/25/13 11:50	03/28/13 01:30
480-35123-15	NFR-12 (6-12)	Solid	03/25/13 11:55	03/28/13 01:30
480-35123-16	NFR-12 (1-2)	Solid	03/25/13 12:00	03/28/13 01:30
480-35123-17	NFR-13 (0-6)	Solid	03/25/13 12:30	03/28/13 01:30
480-35123-18	NFR-13 (6-12)	Solid	03/25/13 12:35	03/28/13 01:30
480-35123-19	NFR-13 (1-2)	Solid	03/25/13 12:40	03/28/13 01:30
480-35123-20	NFR-14 (0-6)	Solid	03/25/13 12:50	03/28/13 01:30

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM: Hoffman, Sally	Carrier Tracking No(s)	COC No: 480-34278-8744 3
Client Contact: Mr Rory Woodmansee	Phone	E-Mail: sally.hoffman@testamericainc.com		Page: Page 3 of 13
Company: C&S Engineers, Inc				Job #
Address: 499 Col Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not required			
Email: rwoodmansee@cscos.com	WO #			
Project Name: Former Arthur Kill Correctional Facility	Project #: 48006338			
Site	SSOW#			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NeHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - Lead	8270C - TCL SVOA - OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
NFR-7 (1-2)	3/25/13	1030		Solid			X			
NFR-8 (0-6)		1045		Solid			X			
NFR-8 (0-6) MS		1045		Solid			X			
NFR-8 (0-6) MSD		1045		Solid			X			
NFR-8 (6-12)		1050		Solid			X			
NFR-8 (1-2)		1055		Solid			X			
NFR-9 (0-6)		1100		Solid			X			
NFR-9 (6-12)		1105		Solid			X			
NFR-9 (1-2)		1110		Solid			X			
NFR-10 (0-6)		1120		Solid			X			
NFR-10 (6-12)		1125		Solid			X			

Possible Hazard Identification

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

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

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested. I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Rory Woodman	3/28/13 1115	C&S	Remelik	3-27-13, 11:15	Sya
Relinquished by: RE	3-27-13, 1900	S&S	Received by: [illegible]	3/28/13 0130	TA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks	3.8, 4.3, 4.4 #1

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM: Hoffman, Sally	Carrier Tracking No(s)	COC No: 480-34278-8744 4
Client Contact: Mr. Rory Woodmansee	Phone	E-Mail: sally.hoffman@testamericainc.com		Page: Page 4 of 13
Company: C&S Engineers, Inc				Job #
Address: 499 Col Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not required			
Email: rwoodmansee@cscos.com	WO #			
Project Name: Former Arthur Kill Correctional Facility	Project #: 48006338			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - Lead	8270C - TCL SVOA - OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
NFR-10 (1-2)	3/25/13	1130		Solid			X			
NFR-11 (0-6)		1135		Solid			X			
NFR-11 (6-12)		1140		Solid			X			
NFR-11 (1-2)		1145		Solid			X			
NFR-12 (0-6)		1150		Solid			X			
NFR-12 (6-12)		1155		Solid			X			
NFR-12 (1-2)		1200		Solid			X			
NFR-13 (0-6)		1230		Solid			X			
NFR-13 (6-12)		1235		Solid			X			
NFR-13 (1-2)		1240		Solid			X			
NFR-14 (0-6)		1250		Solid			X			

Possible Hazard Identification

☐ Non-Hazard ☐ Flammable ☐ Skin Imtant ☐ Poison B ☐ Unknown ☐ Radiological

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

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	3/27/13 1115	C&S	R English	3-27-13, 11:15	Syr
Relinquished by: RE	3-27-13 1800	S7	[signature]	3/28/13 0130	TA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks

Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-35123-1

Login Number: 35123
List Number: 1
Creator: Janish, Carl

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is 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 sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	C+S
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-35127-1
Client Project/Site: Former Arthur Kill Correctional Facility

For:
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212

Attn: Mr. Rory Woodmansee

Authorized for release by:
4/5/2013 3:26:57 PM
Joe Giacomazza
Project Administrator
joe.giacomazza@testamericainc.com

Designee for

Sally Hoffman
Project Manager II
sally.hoffman@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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)

Job ID: 480-35127-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-35127-1

Receipt
The samples were received on 3/28/2013 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.8º C, 4.3º C and 4.4º C.

GC/MS Semi VOA
Method(s) 8270C: The following sample was diluted due to the nature of the sample matrix: NFR-16 (0-6) (480-35127-6). Elevated reporting limits (RLs) are provided.

Method(s) 8270C: The continuing calibration verification (CCV) for several analytes associated with analytical batch 480-109909 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 8270C: The laboratory control sample (LCS) for preparation batch 109847 exceeded control limits for several analytes. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270C: The following sample was diluted due to the nature of the sample matrix: NFR-15 (0-6) (480-35127-3). Elevated reporting limits (RLs) are provided.

Method(s) 8270C: The following compounds were outside control limits in the continuing calibration verification (CCV) associated with analytical batch 480-110627: 2,2-oxybis[1-chloropropane and 2-Nitroaniline. These compounds are not classified as Calibration Check Compounds (CCCs) in the reference method, and the laboratory defaults to in-house and/or project-specific criteria for evaluation. Due to the large number of analytes contained in the CCV, the laboratory's SOP allows for four analytes to be outside limits; therefore, the data have been reported.

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-14 (6-12) — Lab Sample ID: 480-35127-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	66.5		1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-14 (1-2) — Lab Sample ID: 480-35127-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	29.9		1.1	0.28	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-15 (0-6) — Lab Sample ID: 480-35127-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	12	J	940	11	ug/Kg	5	☼	8270C	Total/NA
Acenaphthene	89	J	940	11	ug/Kg	5	☼	8270C	Total/NA
Anthracene	210	J	940	24	ug/Kg	5	☼	8270C	Total/NA
Benzo(a)anthracene	720	J	940	16	ug/Kg	5	☼	8270C	Total/NA
Benzo(a)pyrene	710	J	940	22	ug/Kg	5	☼	8270C	Total/NA
Benzo(b)fluoranthene	1000		940	18	ug/Kg	5	☼	8270C	Total/NA
Benzo(g,h,i)perylene	210	J	940	11	ug/Kg	5	☼	8270C	Total/NA
Benzo(k)fluoranthene	340	J	940	10	ug/Kg	5	☼	8270C	Total/NA
Carbazole	85	J	940	11	ug/Kg	5	☼	8270C	Total/NA
Chrysene	700	J	940	9.3	ug/Kg	5	☼	8270C	Total/NA
Dibenz(a,h)anthracene	75	J	940	11	ug/Kg	5	☼	8270C	Total/NA
Dibenzofuran	43	J	940	9.7	ug/Kg	5	☼	8270C	Total/NA
Fluoranthene	1500		940	13	ug/Kg	5	☼	8270C	Total/NA
Fluorene	56	J	940	21	ug/Kg	5	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	200	J	940	26	ug/Kg	5	☼	8270C	Total/NA
Phenanthrene	1200		940	20	ug/Kg	5	☼	8270C	Total/NA
Pyrene	1200		940	6.0	ug/Kg	5	☼	8270C	Total/NA
Lead	106		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-15 (6-12) — Lab Sample ID: 480-35127-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	95.6		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-15 (1-5) — Lab Sample ID: 480-35127-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo(a)pyrene	23	J	190	4.5	ug/Kg	1	☼	8270C	Total/NA
Benzo(b)fluoranthene	43	J	190	3.6	ug/Kg	1	☼	8270C	Total/NA
Benzo(g,h,i)perylene	16	J	190	2.2	ug/Kg	1	☼	8270C	Total/NA
Benzo(k)fluoranthene	14	J	190	2.0	ug/Kg	1	☼	8270C	Total/NA
Chrysene	28	J	190	1.8	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	28	J	190	2.7	ug/Kg	1	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	12	J	190	5.1	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	7.2	J	190	3.9	ug/Kg	1	☼	8270C	Total/NA
Pyrene	25	J	190	1.2	ug/Kg	1	☼	8270C	Total/NA
Lead	12.4		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-16 (0-6) — Lab Sample ID: 480-35127-6

This Detection Summary does not include radiochemical test results.

Client Sample ID: NFR-16 (0-6) (Continued) — Lab Sample ID: 480-35127-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	17	J	900	11	ug/Kg	5	☼	8270C	Total/NA
Acenaphthene	110	J	900	11	ug/Kg	5	☼	8270C	Total/NA
Anthracene	280	J	900	23	ug/Kg	5	☼	8270C	Total/NA
Benzo(a)anthracene	680	J	900	15	ug/Kg	5	☼	8270C	Total/NA
Benzo(a)pyrene	660	J	900	22	ug/Kg	5	☼	8270C	Total/NA
Benzo(b)fluoranthene	770	J	900	17	ug/Kg	5	☼	8270C	Total/NA
Benzo(g,h,i)perylene	210	J	900	11	ug/Kg	5	☼	8270C	Total/NA
Benzo(k)fluoranthene	400	J	900	9.8	ug/Kg	5	☼	8270C	Total/NA
Carbazole	110	J	900	10	ug/Kg	5	☼	8270C	Total/NA
Chrysene	650	J	900	8.9	ug/Kg	5	☼	8270C	Total/NA
Dibenz(a,h)anthracene	65	J	900	11	ug/Kg	5	☼	8270C	Total/NA
Dibenzofuran	51	J	900	9.3	ug/Kg	5	☼	8270C	Total/NA
Fluoranthene	1400		900	13	ug/Kg	5	☼	8270C	Total/NA
Fluorene	93	J	900	21	ug/Kg	5	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	190	J	900	25	ug/Kg	5	☼	8270C	Total/NA
Naphthalene	88	J	900	15	ug/Kg	5	☼	8270C	Total/NA
Phenanthrene	960		900	19	ug/Kg	5	☼	8270C	Total/NA
Pyrene	1100		900	5.8	ug/Kg	5	☼	8270C	Total/NA
Lead	69.2		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-16 (6-12) — Lab Sample ID: 480-35127-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	89.4		1.2	0.30	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-16 (1-5) — Lab Sample ID: 480-35127-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	13	J	190	2.2	ug/Kg	1	☼	8270C	Total/NA
Anthracene	51	J	190	4.7	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)anthracene	250		190	3.2	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)pyrene	280		190	4.4	ug/Kg	1	☼	8270C	Total/NA
Benzo(b)fluoranthene	340		190	3.6	ug/Kg	1	☼	8270C	Total/NA
Benzo(g,h,i)perylene	81	J	190	2.2	ug/Kg	1	☼	8270C	Total/NA
Benzo(k)fluoranthene	200		190	2.0	ug/Kg	1	☼	8270C	Total/NA
Chrysene	270		190	1.8	ug/Kg	1	☼	8270C	Total/NA
Dibenz(a,h)anthracene	29	J	190	2.2	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	390		190	2.7	ug/Kg	1	☼	8270C	Total/NA
Fluorene	11	J	190	4.2	ug/Kg	1	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	87	J	190	5.1	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	150	J	190	3.9	ug/Kg	1	☼	8270C	Total/NA
Pyrene	320		190	1.2	ug/Kg	1	☼	8270C	Total/NA
Lead	16.5		1.0	0.25	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-17 (0-6) — Lab Sample ID: 480-35127-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	84.3		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-17 (6-12) — Lab Sample ID: 480-35127-10

This Detection Summary does not include radiochemical test results.

Client Sample ID: NFR-17 (6-12) (Continued) — Lab Sample ID: 480-35127-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	74.1		1.2	0.28	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-17 (1-5) — Lab Sample ID: 480-35127-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthene	2.8	J	190	2.2	ug/Kg	1	☼	8270C	Total/NA
Anthracene	9.1	J	190	4.8	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)anthracene	32	J	190	3.2	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)pyrene	40	J	190	4.5	ug/Kg	1	☼	8270C	Total/NA
Benzo(b)fluoranthene	84	J	190	3.6	ug/Kg	1	☼	8270C	Total/NA
Benzo(g,h,i)perylene	13	J	190	2.3	ug/Kg	1	☼	8270C	Total/NA
Benzo(k)fluoranthene	42	J	190	2.1	ug/Kg	1	☼	8270C	Total/NA
Bis(2-ethylhexyl) phthalate	840		190	61	ug/Kg	1	☼	8270C	Total/NA
Carbazole	13	J	190	2.2	ug/Kg	1	☼	8270C	Total/NA
Chrysene	86	J	190	1.9	ug/Kg	1	☼	8270C	Total/NA
Dibenz(a,h)anthracene	4.5	J	190	2.2	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	170	J	190	2.7	ug/Kg	1	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	13	J	190	5.2	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	81	J	190	3.9	ug/Kg	1	☼	8270C	Total/NA
Pyrene	110	J	190	1.2	ug/Kg	1	☼	8270C	Total/NA
Lead	23.8		1.2	0.28	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-18 (0-6) — Lab Sample ID: 480-35127-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	67.8		1.1	0.25	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-18 (6-12) — Lab Sample ID: 480-35127-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	118		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-18 (1-2) — Lab Sample ID: 480-35127-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	24.8		1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-19 (0-6) — Lab Sample ID: 480-35127-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	49.5		1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-19 (6-12) — Lab Sample ID: 480-35127-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	18.6		1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-19 (1-2) — Lab Sample ID: 480-35127-17

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-19 (1-2) (Continued) — Lab Sample ID: 480-35127-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	11.3		1.2	0.30	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-20 (0-6) — Lab Sample ID: 480-35127-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	39.1		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-20 (6-12) — Lab Sample ID: 480-35127-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	64.3		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-20 (1-2) — Lab Sample ID: 480-35127-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	28.0		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-14 (6-12)
Date Collected: 03/25/13 12:55
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-1
Matrix: Solid
Percent Solids: 85.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	66.5		1.1	0.26	mg/Kg	☼	03/28/13 15:00	03/29/13 12:41	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-14 (1-2)
Date Collected: 03/25/13 13:00
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-2
Matrix: Solid
Percent Solids: 88.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	29.9		1.1	0.28	mg/Kg	☼	03/28/13 15:00	03/29/13 12:48	1

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-15 (0-6)
Date Collected: 03/25/13 13:15
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-3
Matrix: Solid
Percent Solids: 90.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		940	200	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
2,4,6-Trichlorophenol	ND		940	61	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
2,4-Dichlorophenol	ND		940	49	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
2,4-Dimethylphenol	ND		940	250	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
2,4-Dinitrophenol	ND		1800	330	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
2,4-Dinitrotoluene	ND		940	140	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
2,6-Dinitrotoluene	ND		940	230	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
2-Chloronaphthalene	ND		940	62	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
2-Chlorophenol	ND		940	47	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
2-Methylnaphthalene	**12**	**J**	940	11	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
2-Methylphenol	ND		940	29	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
2-Nitroaniline	ND		1800	300	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
2-Nitrophenol	ND		940	43	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
3,3'-Dichlorobenzidine	ND		940	820	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
3-Nitroaniline	ND		1800	210	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
4,6-Dinitro-2-methylphenol	ND		1800	320	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
4-Bromophenyl phenyl ether	ND		940	300	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
4-Chloro-3-methylphenol	ND		940	38	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
4-Chloroaniline	ND		940	270	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
4-Chlorophenyl phenyl ether	ND		940	20	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
4-Methylphenol	ND		1800	52	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
4-Nitroaniline	ND		1800	100	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
4-Nitrophenol	ND		1800	230	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Acenaphthene	**89**	**J**	940	11	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Acenaphthylene	ND		940	7.6	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Acetophenone	ND		940	48	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Anthracene	**210**	**J**	940	24	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Atrazine	ND		940	41	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Benzaldehyde	ND		940	100	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Benzo(a)anthracene	**720**	**J**	940	16	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Benzo(a)pyrene	**710**	**J**	940	22	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Benzo(b)fluoranthene	**1000**		940	18	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Benzo(g,h,i)perylene	**210**	**J**	940	11	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Benzo(k)fluoranthene	**340**	**J**	940	10	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Biphenyl	ND		940	58	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
bis (2-chloroisopropyl) ether	ND		940	97	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Bis(2-chloroethoxy)methane	ND		940	51	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Bis(2-chloroethyl)ether	ND		940	80	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Bis(2-ethylhexyl) phthalate	ND		940	300	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Butyl benzyl phthalate	ND		940	250	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Caprolactam	ND		940	400	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Carbazole	**85**	**J**	940	11	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Chrysene	**700**	**J**	940	9.3	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Dibenz(a,h)anthracene	**75**	**J**	940	11	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Dibenzofuran	**43**	**J**	940	9.7	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Diethyl phthalate	ND		940	28	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Dimethyl phthalate	ND		940	24	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Di-n-butyl phthalate	ND		940	320	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Di-n-octyl phthalate	ND		940	22	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-15 (0-6)

Date Collected: 03/25/13 13:15
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-3

Matrix: Solid
Percent Solids: 90.0

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**1500**		940	13	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Fluorene	**56**	**J**	940	21	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Hexachlorobenzene	ND		940	46	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Hexachlorobutadiene	ND		940	48	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Hexachlorocyclopentadiene	ND		940	280	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Hexachloroethane	ND		940	72	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Indeno(1,2,3-cd)pyrene	**200**	**J**	940	26	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Isophorone	ND		940	46	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Naphthalene	ND		940	15	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Nitrobenzene	ND		940	41	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
N-Nitrosodi-n-propylamine	ND		940	74	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
N-Nitrosodiphenylamine	ND		940	51	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Pentachlorophenol	ND		1800	320	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Phenanthrene	**1200**		940	20	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Phenol	ND		940	98	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5
Pyrene	**1200**		940	6.0	ug/Kg	☼	04/03/13 08:16	04/03/13 21:09	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*54*		*39 - 146*	*04/03/13 08:16*	*04/03/13 21:09*	*5*
2-Fluorobiphenyl	*72*		*37 - 120*	*04/03/13 08:16*	*04/03/13 21:09*	*5*
2-Fluorophenol	*74*		*18 - 120*	*04/03/13 08:16*	*04/03/13 21:09*	*5*
Nitrobenzene-d5	*71*		*34 - 132*	*04/03/13 08:16*	*04/03/13 21:09*	*5*
Phenol-d5	*78*		*11 - 120*	*04/03/13 08:16*	*04/03/13 21:09*	*5*
p-Terphenyl-d14	*73*		*65 - 153*	*04/03/13 08:16*	*04/03/13 21:09*	*5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**106**		1.2	0.29	mg/Kg	☼	03/28/13 15:00	03/29/13 12:50	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-15 (6-12)
Date Collected: 03/25/13 13:20
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-4
Matrix: Solid
Percent Solids: 92.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	95.6		1.1	0.27	mg/Kg	☼	03/28/13 15:00	03/29/13 12:53	1

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-15 (1-5)
Date Collected: 03/25/13 13:30
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-5
Matrix: Solid
Percent Solids: 90.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		190	40	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
2,4,6-Trichlorophenol	ND		190	12	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
2,4-Dichlorophenol	ND		190	9.7	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
2,4-Dimethylphenol	ND		190	50	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
2,4-Dinitrophenol	ND		360	65	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
2,4-Dinitrotoluene	ND		190	29	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
2,6-Dinitrotoluene	ND		190	45	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
2-Chloronaphthalene	ND		190	12	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
2-Chlorophenol	ND		190	9.4	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
2-Methylnaphthalene	ND		190	2.2	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
2-Methylphenol	ND		190	5.7	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
2-Nitroaniline	ND	*	360	59	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
2-Nitrophenol	ND		190	8.5	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
3,3'-Dichlorobenzidine	ND		190	160	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
3-Nitroaniline	ND		360	43	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
4,6-Dinitro-2-methylphenol	ND		360	64	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
4-Bromophenyl phenyl ether	ND		190	59	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
4-Chloro-3-methylphenol	ND		190	7.6	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
4-Chloroaniline	ND		190	54	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
4-Chlorophenyl phenyl ether	ND		190	3.9	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
4-Methylphenol	ND		360	10	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
4-Nitroaniline	ND		360	21	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
4-Nitrophenol	ND		360	45	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Acenaphthene	ND		190	2.2	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Acenaphthylene	ND		190	1.5	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Acetophenone	ND		190	9.5	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Anthracene	ND		190	4.7	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Atrazine	ND		190	8.2	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Benzaldehyde	ND		190	20	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Benzo(a)anthracene	ND		190	3.2	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Benzo(a)pyrene	**23**	**J**	190	4.5	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Benzo(b)fluoranthene	**43**	**J**	190	3.6	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Benzo(g,h,i)perylene	**16**	**J**	190	2.2	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Benzo(k)fluoranthene	**14**	**J**	190	2.0	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Biphenyl	ND		190	12	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
bis (2-chloroisopropyl) ether	ND	*	190	19	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Bis(2-chloroethoxy)methane	ND		190	10	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Bis(2-chloroethyl)ether	ND		190	16	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Bis(2-ethylhexyl) phthalate	ND		190	60	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Butyl benzyl phthalate	ND		190	50	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Caprolactam	ND		190	80	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Carbazole	ND		190	2.1	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Chrysene	**28**	**J**	190	1.8	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Dibenz(a,h)anthracene	ND		190	2.2	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Dibenzofuran	ND		190	1.9	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Diethyl phthalate	ND		190	5.6	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Dimethyl phthalate	ND		190	4.8	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Di-n-butyl phthalate	ND		190	64	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Di-n-octyl phthalate	ND		190	4.3	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-15 (1-5)

Date Collected: 03/25/13 13:30
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-5

Matrix: Solid
Percent Solids: 90.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**28**	**J**	190	2.7	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Fluorene	ND		190	4.3	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Hexachlorobenzene	ND		190	9.2	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Hexachlorobutadiene	ND		190	9.5	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Hexachlorocyclopentadiene	ND		190	56	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Hexachloroethane	ND		190	14	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Indeno(1,2,3-cd)pyrene	**12**	**J**	190	5.1	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Isophorone	ND		190	9.2	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Naphthalene	ND		190	3.1	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Nitrobenzene	ND		190	8.2	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
N-Nitrosodi-n-propylamine	ND	*	190	15	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
N-Nitrosodiphenylamine	ND		190	10	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Pentachlorophenol	ND		360	63	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Phenanthrene	**7.2**	**J**	190	3.9	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Phenol	ND		190	19	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1
Pyrene	**25**	**J**	190	1.2	ug/Kg	☼	03/29/13 06:49	03/29/13 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*89*		*39 - 146*	*03/29/13 06:49*	*03/29/13 17:03*	*1*
2-Fluorobiphenyl	*92*		*37 - 120*	*03/29/13 06:49*	*03/29/13 17:03*	*1*
2-Fluorophenol	*92*		*18 - 120*	*03/29/13 06:49*	*03/29/13 17:03*	*1*
Nitrobenzene-d5	*98*		*34 - 132*	*03/29/13 06:49*	*03/29/13 17:03*	*1*
Phenol-d5	*97*		*11 - 120*	*03/29/13 06:49*	*03/29/13 17:03*	*1*
p-Terphenyl-d14	*97*		*65 - 153*	*03/29/13 06:49*	*03/29/13 17:03*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**12.4**		1.2	0.29	mg/Kg	☼	03/28/13 15:00	03/29/13 12:55	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-16 (0-6)

Date Collected: 03/25/13 13:40
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-6

Matrix: Solid
Percent Solids: 93.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		900	200	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
2,4,6-Trichlorophenol	ND		900	59	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
2,4-Dichlorophenol	ND		900	47	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
2,4-Dimethylphenol	ND		900	240	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
2,4-Dinitrophenol	ND		1700	310	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
2,4-Dinitrotoluene	ND		900	140	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
2,6-Dinitrotoluene	ND		900	220	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
2-Chloronaphthalene	ND		900	60	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
2-Chlorophenol	ND		900	46	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
2-Methylnaphthalene	**17**	**J**	900	11	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
2-Methylphenol	ND		900	27	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
2-Nitroaniline	ND	*	1700	290	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
2-Nitrophenol	ND		900	41	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
3,3'-Dichlorobenzidine	ND		900	780	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
3-Nitroaniline	ND		1700	210	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
4,6-Dinitro-2-methylphenol	ND		1700	310	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
4-Bromophenyl phenyl ether	ND		900	280	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
4-Chloro-3-methylphenol	ND		900	37	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
4-Chloroaniline	ND		900	260	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
4-Chlorophenyl phenyl ether	ND		900	19	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
4-Methylphenol	ND		1700	50	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
4-Nitroaniline	ND		1700	100	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
4-Nitrophenol	ND		1700	220	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Acenaphthene	**110**	**J**	900	11	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Acenaphthylene	ND		900	7.3	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Acetophenone	ND		900	46	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Anthracene	**280**	**J**	900	23	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Atrazine	ND		900	40	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Benzaldehyde	ND		900	98	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Benzo(a)anthracene	**680**	**J**	900	15	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Benzo(a)pyrene	**660**	**J**	900	22	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Benzo(b)fluoranthene	**770**	**J**	900	17	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Benzo(g,h,i)perylene	**210**	**J**	900	11	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Benzo(k)fluoranthene	**400**	**J**	900	9.8	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Biphenyl	ND		900	56	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
bis (2-chloroisopropyl) ether	ND	*	900	93	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Bis(2-chloroethoxy)methane	ND		900	49	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Bis(2-chloroethyl)ether	ND		900	77	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Bis(2-ethylhexyl) phthalate	ND		900	290	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Butyl benzyl phthalate	ND		900	240	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Caprolactam	ND		900	390	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Carbazole	**110**	**J**	900	10	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Chrysene	**650**	**J**	900	8.9	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Dibenz(a,h)anthracene	**65**	**J**	900	11	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Dibenzofuran	**51**	**J**	900	9.3	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Diethyl phthalate	ND		900	27	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Dimethyl phthalate	ND		900	23	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Di-n-butyl phthalate	ND		900	310	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Di-n-octyl phthalate	ND		900	21	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-16 (0-6)

Date Collected: 03/25/13 13:40
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-6

Matrix: Solid
Percent Solids: 93.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**1400**		900	13	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Fluorene	**93**	**J**	900	21	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Hexachlorobenzene	ND		900	44	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Hexachlorobutadiene	ND		900	46	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Hexachlorocyclopentadiene	ND		900	270	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Hexachloroethane	ND		900	69	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Indeno(1,2,3-cd)pyrene	**190**	**J**	900	25	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Isophorone	ND		900	45	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Naphthalene	**88**	**J**	900	15	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Nitrobenzene	ND		900	40	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
N-Nitrosodi-n-propylamine	ND	*	900	71	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
N-Nitrosodiphenylamine	ND		900	49	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Pentachlorophenol	ND		1700	310	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Phenanthrene	**960**		900	19	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Phenol	ND		900	94	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5
Pyrene	**1100**		900	5.8	ug/Kg	☼	03/29/13 06:49	03/29/13 18:18	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*67*		*39 - 146*	*03/29/13 06:49*	*03/29/13 18:18*	*5*
2-Fluorobiphenyl	*86*		*37 - 120*	*03/29/13 06:49*	*03/29/13 18:18*	*5*
2-Fluorophenol	*90*		*18 - 120*	*03/29/13 06:49*	*03/29/13 18:18*	*5*
Nitrobenzene-d5	*83*		*34 - 132*	*03/29/13 06:49*	*03/29/13 18:18*	*5*
Phenol-d5	*89*		*11 - 120*	*03/29/13 06:49*	*03/29/13 18:18*	*5*
p-Terphenyl-d14	*88*		*65 - 153*	*03/29/13 06:49*	*03/29/13 18:18*	*5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**69.2**		1.2	0.29	mg/Kg	☼	03/28/13 15:00	03/29/13 13:06	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-16 (6-12)
Date Collected: 03/25/13 13:45
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-7
Matrix: Solid
Percent Solids: 88.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	89.4		1.2	0.30	mg/Kg	☼	03/28/13 15:00	03/29/13 13:08	1

Client Sample ID: NFR-16 (1-5)

Date Collected: 03/25/13 13:50
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-8
Matrix: Solid
Percent Solids: 90.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		190	40	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
2,4,6-Trichlorophenol	ND		190	12	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
2,4-Dichlorophenol	ND		190	9.7	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
2,4-Dimethylphenol	ND		190	50	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
2,4-Dinitrophenol	ND		360	64	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
2,4-Dinitrotoluene	ND		190	28	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
2,6-Dinitrotoluene	ND		190	45	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
2-Chloronaphthalene	ND		190	12	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
2-Chlorophenol	ND		190	9.4	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
2-Methylnaphthalene	ND		190	2.2	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
2-Methylphenol	ND		190	5.7	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
2-Nitroaniline	ND	*	360	59	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
2-Nitrophenol	ND		190	8.4	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
3,3'-Dichlorobenzidine	ND		190	160	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
3-Nitroaniline	ND		360	42	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
4,6-Dinitro-2-methylphenol	ND		360	64	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
4-Bromophenyl phenyl ether	ND		190	59	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
4-Chloro-3-methylphenol	ND		190	7.6	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
4-Chloroaniline	ND		190	54	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
4-Chlorophenyl phenyl ether	ND		190	3.9	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
4-Methylphenol	ND		360	10	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
4-Nitroaniline	ND		360	21	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
4-Nitrophenol	ND		360	45	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Acenaphthene	**13**	**J**	190	2.2	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Acenaphthylene	ND		190	1.5	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Acetophenone	ND		190	9.4	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Anthracene	**51**	**J**	190	4.7	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Atrazine	ND		190	8.2	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Benzaldehyde	ND		190	20	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Benzo(a)anthracene	**250**		190	3.2	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Benzo(a)pyrene	**280**		190	4.4	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Benzo(b)fluoranthene	**340**		190	3.6	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Benzo(g,h,i)perylene	**81**	**J**	190	2.2	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Benzo(k)fluoranthene	**200**		190	2.0	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Biphenyl	ND		190	11	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
bis (2-chloroisopropyl) ether	ND	*	190	19	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Bis(2-chloroethoxy)methane	ND		190	10	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Bis(2-chloroethyl)ether	ND		190	16	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Bis(2-ethylhexyl) phthalate	ND		190	59	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Butyl benzyl phthalate	ND		190	49	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Caprolactam	ND		190	80	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Carbazole	ND		190	2.1	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Chrysene	**270**		190	1.8	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Dibenz(a,h)anthracene	**29**	**J**	190	2.2	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Dibenzofuran	ND		190	1.9	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Diethyl phthalate	ND		190	5.6	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Dimethyl phthalate	ND		190	4.8	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Di-n-butyl phthalate	ND		190	64	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Di-n-octyl phthalate	ND		190	4.3	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-16 (1-5)

Date Collected: 03/25/13 13:50
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-8

Matrix: Solid
Percent Solids: 90.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**390**		190	2.7	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Fluorene	**11**	**J**	190	4.2	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Hexachlorobenzene	ND		190	9.1	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Hexachlorobutadiene	ND		190	9.4	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Hexachlorocyclopentadiene	ND		190	56	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Hexachloroethane	ND		190	14	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Indeno(1,2,3-cd)pyrene	**87**	**J**	190	5.1	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Isophorone	ND		190	9.2	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Naphthalene	ND		190	3.1	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Nitrobenzene	ND		190	8.2	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
N-Nitrosodi-n-propylamine	ND	*	190	15	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
N-Nitrosodiphenylamine	ND		190	10	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Pentachlorophenol	ND		360	63	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Phenanthrene	**150**	**J**	190	3.9	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Phenol	ND		190	19	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1
Pyrene	**320**		190	1.2	ug/Kg	☼	03/29/13 06:49	03/29/13 18:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*93*		*39 - 146*	*03/29/13 06:49*	*03/29/13 18:43*	*1*
2-Fluorobiphenyl	*93*		*37 - 120*	*03/29/13 06:49*	*03/29/13 18:43*	*1*
2-Fluorophenol	*89*		*18 - 120*	*03/29/13 06:49*	*03/29/13 18:43*	*1*
Nitrobenzene-d5	*92*		*34 - 132*	*03/29/13 06:49*	*03/29/13 18:43*	*1*
Phenol-d5	*95*		*11 - 120*	*03/29/13 06:49*	*03/29/13 18:43*	*1*
p-Terphenyl-d14	*96*		*65 - 153*	*03/29/13 06:49*	*03/29/13 18:43*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**16.5**		1.0	0.25	mg/Kg	☼	03/28/13 15:00	03/29/13 13:15	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-17 (0-6)

Lab Sample ID: 480-35127-9

Date Collected: 03/25/13 13:55
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	84.3		1.2	0.29	mg/Kg	☼	03/28/13 15:00	03/29/13 13:17	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-17 (6-12)

Lab Sample ID: 480-35127-10

Date Collected: 03/25/13 14:00
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	74.1		1.2	0.28	mg/Kg	☼	03/28/13 15:00	03/29/13 13:20	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-17 (1-5)

Date Collected: 03/25/13 14:05
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-11

Matrix: Solid
Percent Solids: 88.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		190	41	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
2,4,6-Trichlorophenol	ND		190	12	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
2,4-Dichlorophenol	ND		190	9.9	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
2,4-Dimethylphenol	ND		190	51	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
2,4-Dinitrophenol	ND		370	66	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
2,4-Dinitrotoluene	ND		190	29	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
2,6-Dinitrotoluene	ND		190	46	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
2-Chloronaphthalene	ND		190	13	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
2-Chlorophenol	ND		190	9.6	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
2-Methylnaphthalene	ND		190	2.3	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
2-Methylphenol	ND		190	5.8	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
2-Nitroaniline	ND	*	370	60	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
2-Nitrophenol	ND		190	8.6	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
3,3'-Dichlorobenzidine	ND		190	160	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
3-Nitroaniline	ND		370	43	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
4,6-Dinitro-2-methylphenol	ND		370	65	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
4-Bromophenyl phenyl ether	ND		190	60	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
4-Chloro-3-methylphenol	ND		190	7.7	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
4-Chloroaniline	ND		190	55	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
4-Chlorophenyl phenyl ether	ND		190	4.0	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
4-Methylphenol	ND		370	10	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
4-Nitroaniline	ND		370	21	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
4-Nitrophenol	ND		370	46	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Acenaphthene	**2.8**	**J**	190	2.2	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Acenaphthylene	ND		190	1.5	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Acetophenone	ND		190	9.7	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Anthracene	**9.1**	**J**	190	4.8	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Atrazine	ND		190	8.4	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Benzaldehyde	ND		190	21	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Benzo(a)anthracene	**32**	**J**	190	3.2	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Benzo(a)pyrene	**40**	**J**	190	4.5	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Benzo(b)fluoranthene	**84**	**J**	190	3.6	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Benzo(g,h,i)perylene	**13**	**J**	190	2.3	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Benzo(k)fluoranthene	**42**	**J**	190	2.1	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Biphenyl	ND		190	12	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
bis (2-chloroisopropyl) ether	ND	*	190	20	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Bis(2-chloroethoxy)methane	ND		190	10	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Bis(2-chloroethyl)ether	ND		190	16	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Bis(2-ethylhexyl) phthalate	**840**		190	61	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Butyl benzyl phthalate	ND		190	51	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Caprolactam	ND		190	81	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Carbazole	**13**	**J**	190	2.2	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Chrysene	**86**	**J**	190	1.9	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Dibenz(a,h)anthracene	**4.5**	**J**	190	2.2	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Dibenzofuran	ND		190	2.0	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Diethyl phthalate	ND		190	5.7	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Dimethyl phthalate	ND		190	4.9	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Di-n-butyl phthalate	ND		190	65	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Di-n-octyl phthalate	ND		190	4.4	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-17 (1-5)

Date Collected: 03/25/13 14:05
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-11

Matrix: Solid
Percent Solids: 88.1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**170**	**J**	190	2.7	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Fluorene	ND		190	4.3	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Hexachlorobenzene	ND		190	9.3	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Hexachlorobutadiene	ND		190	9.6	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Hexachlorocyclopentadiene	ND		190	57	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Hexachloroethane	ND		190	15	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Indeno(1,2,3-cd)pyrene	**13**	**J**	190	5.2	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Isophorone	ND		190	9.4	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Naphthalene	ND		190	3.1	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Nitrobenzene	ND		190	8.3	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
N-Nitrosodi-n-propylamine	ND	*	190	15	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
N-Nitrosodiphenylamine	ND		190	10	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Pentachlorophenol	ND		370	65	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Phenanthrene	**81**	**J**	190	3.9	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Phenol	ND		190	20	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1
Pyrene	**110**	**J**	190	1.2	ug/Kg	☼	03/29/13 06:49	03/29/13 19:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*92*		*39 - 146*	*03/29/13 06:49*	*03/29/13 19:08*	*1*
2-Fluorobiphenyl	*93*		*37 - 120*	*03/29/13 06:49*	*03/29/13 19:08*	*1*
2-Fluorophenol	*91*		*18 - 120*	*03/29/13 06:49*	*03/29/13 19:08*	*1*
Nitrobenzene-d5	*95*		*34 - 132*	*03/29/13 06:49*	*03/29/13 19:08*	*1*
Phenol-d5	*94*		*11 - 120*	*03/29/13 06:49*	*03/29/13 19:08*	*1*
p-Terphenyl-d14	*90*		*65 - 153*	*03/29/13 06:49*	*03/29/13 19:08*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**23.8**		1.2	0.28	mg/Kg	☼	03/28/13 15:00	03/29/13 13:22	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-18 (0-6)

Lab Sample ID: 480-35127-12

Date Collected: 03/25/13 14:10
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 89.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	67.8		1.1	0.25	mg/Kg	☼	03/28/13 15:00	03/29/13 13:24	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-18 (6-12)

Date Collected: 03/25/13 14:15
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-13

Matrix: Solid
Percent Solids: 87.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	118		1.2	0.29	mg/Kg	☼	03/28/13 15:00	03/29/13 13:27	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-18 (1-2)
Date Collected: 03/25/13 14:20
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-14
Matrix: Solid
Percent Solids: 86.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	24.8		1.1	0.26	mg/Kg	☼	03/28/13 15:00	03/29/13 13:29	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-19 (0-6)
Date Collected: 03/25/13 14:25
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-15
Matrix: Solid
Percent Solids: 88.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	49.5		1.1	0.26	mg/Kg	☼	03/28/13 15:00	03/29/13 13:31	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-19 (6-12)

Lab Sample ID: 480-35127-16

Date Collected: 03/25/13 14:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 85.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	18.6		1.1	0.26	mg/Kg	☼	03/28/13 15:00	03/29/13 13:33	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-19 (1-2)
Date Collected: 03/25/13 14:35
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-17
Matrix: Solid
Percent Solids: 87.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	11.3		1.2	0.30	mg/Kg	☼	03/28/13 15:00	03/29/13 13:36	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-20 (0-6)

Lab Sample ID: 480-35127-18

Date Collected: 03/25/13 14:45
Date Received: 03/28/13 01:30

Matrix: Solid
Percent Solids: 87.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	39.1		1.1	0.27	mg/Kg	☼	03/28/13 15:00	03/29/13 13:42	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-20 (6-12)

Lab Sample ID: 480-35127-19

Date Collected: 03/25/13 14:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 89.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	64.3		1.1	0.27	mg/Kg	☼	03/28/13 15:00	03/29/13 13:45	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-20 (1-2)
Date Collected: 03/25/13 14:55
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-20
Matrix: Solid
Percent Solids: 87.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	28.0		1.2	0.29	mg/Kg	☼	03/28/13 15:00	03/29/13 13:47	1

Surrogate Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(39-146)	(37-120)	(18-120)	(34-132)	(11-120)	(65-153)
480-35127-3	NFR-15 (0-6)	54	72	74	71	78	73
480-35127-5	NFR-15 (1-5)	89	92	92	98	97	97
480-35127-5 MS	NFR-15 (1-5)	102	94	87	100	101	94
480-35127-5 MSD	NFR-15 (1-5)	105	95	89	101	100	95
480-35127-6	NFR-16 (0-6)	67	86	90	83	89	88
480-35127-8	NFR-16 (1-5)	93	93	89	92	95	96
480-35127-11	NFR-17 (1-5)	92	93	91	95	94	90
LCS 480-109847/2-A	Lab Control Sample	102	92	87	100	99	97
LCS 480-110597/2-A	Lab Control Sample	98	95	89	98	99	97
MB 480-109847/1-A	Method Blank	85	89	86	95	92	100
MB 480-110597/1-A	Method Blank	83	95	93	95	97	101

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

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

Lab Sample ID: MB 480-109847/1-A
Matrix: Solid
Analysis Batch: 109909

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 109847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	36	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2,4,6-Trichlorophenol	ND		170	11	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2,4-Dichlorophenol	ND		170	8.7	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2,4-Dimethylphenol	ND		170	45	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2,4-Dinitrophenol	ND		330	58	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2,4-Dinitrotoluene	ND		170	26	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2,6-Dinitrotoluene	ND		170	41	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2-Chloronaphthalene	ND		170	11	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2-Chlorophenol	ND		170	8.5	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2-Methylnaphthalene	ND		170	2.0	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2-Methylphenol	ND		170	5.1	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2-Nitroaniline	ND		330	53	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2-Nitrophenol	ND		170	7.6	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
3,3'-Dichlorobenzidine	ND		170	150	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
3-Nitroaniline	ND		330	38	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4,6-Dinitro-2-methylphenol	ND		330	58	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Bromophenyl phenyl ether	ND		170	53	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Chloro-3-methylphenol	ND		170	6.9	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Chloroaniline	ND		170	49	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Chlorophenyl phenyl ether	ND		170	3.6	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Methylphenol	ND		330	9.3	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Nitroaniline	ND		330	19	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Nitrophenol	ND		330	40	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Acenaphthene	ND		170	2.0	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Acenaphthylene	ND		170	1.4	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Acetophenone	ND		170	8.6	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Anthracene	ND		170	4.3	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Atrazine	ND		170	7.4	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Benzaldehyde	ND		170	18	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Benzo(a)anthracene	ND		170	2.9	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Benzo(a)pyrene	ND		170	4.0	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Benzo(b)fluoranthene	ND		170	3.2	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Benzo(g,h,i)perylene	ND		170	2.0	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Benzo(k)fluoranthene	ND		170	1.8	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Biphenyl	ND		170	10	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
bis (2-chloroisopropyl) ether	ND		170	17	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Bis(2-chloroethoxy)methane	ND		170	9.1	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Bis(2-chloroethyl)ether	ND		170	14	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Bis(2-ethylhexyl) phthalate	ND		170	54	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Butyl benzyl phthalate	ND		170	45	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Caprolactam	ND		170	72	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Carbazole	ND		170	1.9	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Chrysene	ND		170	1.7	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Dibenz(a,h)anthracene	ND		170	2.0	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Dibenzofuran	ND		170	1.7	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Diethyl phthalate	ND		170	5.0	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Dimethyl phthalate	ND		170	4.4	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Di-n-butyl phthalate	ND		170	58	ug/Kg		03/29/13 05:49	03/29/13 14:08	1

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

Lab Sample ID: MB 480-109847/1-A
Matrix: Solid
Analysis Batch: 109909

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 109847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	ND		170	3.9	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Fluoranthene	ND		170	2.4	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Fluorene	ND		170	3.8	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Hexachlorobenzene	ND		170	8.3	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Hexachlorobutadiene	ND		170	8.5	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Hexachlorocyclopentadiene	ND		170	50	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Hexachloroethane	ND		170	13	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Indeno(1,2,3-cd)pyrene	ND		170	4.6	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Isophorone	ND		170	8.3	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Naphthalene	ND		170	2.8	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Nitrobenzene	ND		170	7.4	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
N-Nitrosodi-n-propylamine	ND		170	13	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
N-Nitrosodiphenylamine	ND		170	9.1	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Pentachlorophenol	ND		330	57	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Phenanthrene	ND		170	3.5	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Phenol	ND		170	18	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Pyrene	ND		170	1.1	ug/Kg		03/29/13 05:49	03/29/13 14:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*85*		*39 - 146*	*03/29/13 05:49*	*03/29/13 14:08*	*1*
2-Fluorobiphenyl	*89*		*37 - 120*	*03/29/13 05:49*	*03/29/13 14:08*	*1*
2-Fluorophenol	*86*		*18 - 120*	*03/29/13 05:49*	*03/29/13 14:08*	*1*
Nitrobenzene-d5	*95*		*34 - 132*	*03/29/13 05:49*	*03/29/13 14:08*	*1*
Phenol-d5	*92*		*11 - 120*	*03/29/13 05:49*	*03/29/13 14:08*	*1*
p-Terphenyl-d14	*100*		*65 - 153*	*03/29/13 05:49*	*03/29/13 14:08*	*1*

Lab Sample ID: LCS 480-109847/2-A
Matrix: Solid
Analysis Batch: 109909

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	3310	3590		ug/Kg		109	55 - 125
2-Chlorophenol	3310	3180		ug/Kg		96	38 - 120
4-Chloro-3-methylphenol	3310	3790		ug/Kg		115	49 - 125
4-Nitrophenol	3310	4240		ug/Kg		128	43 - 137
Acenaphthene	3310	3400		ug/Kg		103	53 - 120
Bis(2-ethylhexyl) phthalate	3310	3530		ug/Kg		107	61 - 133
Fluorene	3310	3560		ug/Kg		108	63 - 126
Hexachloroethane	3310	3140		ug/Kg		95	41 - 120
N-Nitrosodi-n-propylamine	3310	4000	*	ug/Kg		121	46 - 120
Pentachlorophenol	3310	3360		ug/Kg		102	33 - 136
Phenol	3310	3430		ug/Kg		104	36 - 120
Pyrene	3310	3450		ug/Kg		104	51 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*102*		*39 - 146*
2-Fluorobiphenyl	*92*		*37 - 120*

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

Lab Sample ID: LCS 480-109847/2-A
Matrix: Solid
Analysis Batch: 109909

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109847

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*87*		*18 - 120*
Nitrobenzene-d5	*100*		*34 - 132*
Phenol-d5	*99*		*11 - 120*
p-Terphenyl-d14	*97*		*65 - 153*

Lab Sample ID: 480-35127-5 MS
Matrix: Solid
Analysis Batch: 109909

Client Sample ID: NFR-15 (1-5)
Prep Type: Total/NA
Prep Batch: 109847

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	ND		3650	3960		ug/Kg	☼	108	55 - 125
2-Chlorophenol	ND		3650	3540		ug/Kg	☼	97	38 - 120
4-Chloro-3-methylphenol	ND		3650	4070		ug/Kg	☼	111	49 - 125
4-Nitrophenol	ND		3650	4550		ug/Kg	☼	125	43 - 137
Acenaphthene	ND		3650	3830		ug/Kg	☼	105	53 - 120
Bis(2-ethylhexyl) phthalate	ND		3650	3830		ug/Kg	☼	105	61 - 133
Fluorene	ND		3650	3930		ug/Kg	☼	108	63 - 126
Hexachloroethane	ND		3650	3450		ug/Kg	☼	95	41 - 120
N-Nitrosodi-n-propylamine	ND	*	3650	4250		ug/Kg	☼	116	46 - 120
Pentachlorophenol	ND		3650	3680		ug/Kg	☼	101	33 - 136
Phenol	ND		3650	3790		ug/Kg	☼	104	36 - 120
Pyrene	25	J	3650	3720		ug/Kg	☼	101	51 - 133

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*102*		*39 - 146*
2-Fluorobiphenyl	*94*		*37 - 120*
2-Fluorophenol	*87*		*18 - 120*
Nitrobenzene-d5	*100*		*34 - 132*
Phenol-d5	*101*		*11 - 120*
p-Terphenyl-d14	*94*		*65 - 153*

Lab Sample ID: 480-35127-5 MSD
Matrix: Solid
Analysis Batch: 109909

Client Sample ID: NFR-15 (1-5)
Prep Type: Total/NA
Prep Batch: 109847

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,4-Dinitrotoluene	ND		3640	4020		ug/Kg	☼	110	55 - 125	2	20
2-Chlorophenol	ND		3640	3530		ug/Kg	☼	97	38 - 120	0	25
4-Chloro-3-methylphenol	ND		3640	4080		ug/Kg	☼	112	49 - 125	0	27
4-Nitrophenol	ND		3640	4790		ug/Kg	☼	131	43 - 137	5	25
Acenaphthene	ND		3640	3820		ug/Kg	☼	105	53 - 120	0	35
Bis(2-ethylhexyl) phthalate	ND		3640	3860		ug/Kg	☼	106	61 - 133	1	15
Fluorene	ND		3640	3950		ug/Kg	☼	108	63 - 126	1	15
Hexachloroethane	ND		3640	3480		ug/Kg	☼	96	41 - 120	1	46
N-Nitrosodi-n-propylamine	ND	*	3640	4340		ug/Kg	☼	119	46 - 120	2	31
Pentachlorophenol	ND		3640	3800		ug/Kg	☼	104	33 - 136	3	35
Phenol	ND		3640	3810		ug/Kg	☼	104	36 - 120	0	35
Pyrene	25	J	3640	3690		ug/Kg	☼	101	51 - 133	1	35

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

Lab Sample ID: 480-35127-5 MSD
Matrix: Solid
Analysis Batch: 109909

Client Sample ID: NFR-15 (1-5)
Prep Type: Total/NA
Prep Batch: 109847

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*105*		*39 - 146*
2-Fluorobiphenyl	*95*		*37 - 120*
2-Fluorophenol	*89*		*18 - 120*
Nitrobenzene-d5	*101*		*34 - 132*
Phenol-d5	*100*		*11 - 120*
p-Terphenyl-d14	*95*		*65 - 153*

Lab Sample ID: MB 480-110597/1-A
Matrix: Solid
Analysis Batch: 110627

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110597

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	36	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
2,4,6-Trichlorophenol	ND		170	11	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
2,4-Dichlorophenol	ND		170	8.6	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
2,4-Dimethylphenol	ND		170	44	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
2,4-Dinitrophenol	ND		320	58	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
2,4-Dinitrotoluene	ND		170	25	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
2,6-Dinitrotoluene	ND		170	40	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
2-Chloronaphthalene	ND		170	11	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
2-Chlorophenol	ND		170	8.4	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
2-Methylnaphthalene	ND		170	2.0	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
2-Methylphenol	ND		170	5.1	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
2-Nitroaniline	ND		320	53	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
2-Nitrophenol	ND		170	7.5	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
3,3'-Dichlorobenzidine	ND		170	140	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
3-Nitroaniline	ND		320	38	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
4,6-Dinitro-2-methylphenol	ND		320	57	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
4-Bromophenyl phenyl ether	ND		170	52	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
4-Chloro-3-methylphenol	ND		170	6.8	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
4-Chloroaniline	ND		170	48	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
4-Chlorophenyl phenyl ether	ND		170	3.5	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
4-Methylphenol	ND		320	9.2	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
4-Nitroaniline	ND		320	18	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
4-Nitrophenol	ND		320	40	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Acenaphthene	ND		170	1.9	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Acenaphthylene	ND		170	1.3	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Acetophenone	ND		170	8.4	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Anthracene	ND		170	4.2	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Atrazine	ND		170	7.3	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Benzaldehyde	ND		170	18	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Benzo(a)anthracene	ND		170	2.8	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Benzo(a)pyrene	ND		170	4.0	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Benzo(b)fluoranthene	ND		170	3.2	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Benzo(g,h,i)perylene	ND		170	2.0	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Benzo(k)fluoranthene	ND		170	1.8	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Biphenyl	ND		170	10	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
bis (2-chloroisopropyl) ether	ND		170	17	ug/Kg		04/03/13 08:16	04/03/13 17:24	1

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

Lab Sample ID: MB 480-110597/1-A
Matrix: Solid
Analysis Batch: 110627

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 110597

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bis(2-chloroethoxy)methane	ND		170	8.9	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Bis(2-chloroethyl)ether	ND		170	14	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Bis(2-ethylhexyl) phthalate	ND		170	53	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Butyl benzyl phthalate	ND		170	44	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Caprolactam	ND		170	71	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Carbazole	ND		170	1.9	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Chrysene	ND		170	1.6	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Dibenz(a,h)anthracene	ND		170	1.9	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Dibenzofuran	ND		170	1.7	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Diethyl phthalate	ND		170	5.0	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Dimethyl phthalate	ND		170	4.3	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Di-n-butyl phthalate	ND		170	57	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Di-n-octyl phthalate	ND		170	3.8	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Fluoranthene	ND		170	2.4	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Fluorene	ND		170	3.8	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Hexachlorobenzene	ND		170	8.2	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Hexachlorobutadiene	ND		170	8.4	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Hexachlorocyclopentadiene	ND		170	50	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Hexachloroethane	ND		170	13	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Indeno(1,2,3-cd)pyrene	ND		170	4.5	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Isophorone	ND		170	8.2	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Naphthalene	ND		170	2.7	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Nitrobenzene	ND		170	7.3	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
N-Nitrosodi-n-propylamine	ND		170	13	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
N-Nitrosodiphenylamine	ND		170	9.0	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Pentachlorophenol	ND		320	56	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Phenanthrene	ND		170	3.5	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Phenol	ND		170	17	ug/Kg		04/03/13 08:16	04/03/13 17:24	1
Pyrene	ND		170	1.1	ug/Kg		04/03/13 08:16	04/03/13 17:24	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*83*		*39 - 146*	*04/03/13 08:16*	*04/03/13 17:24*	*1*
2-Fluorobiphenyl	*95*		*37 - 120*	*04/03/13 08:16*	*04/03/13 17:24*	*1*
2-Fluorophenol	*93*		*18 - 120*	*04/03/13 08:16*	*04/03/13 17:24*	*1*
Nitrobenzene-d5	*95*		*34 - 132*	*04/03/13 08:16*	*04/03/13 17:24*	*1*
Phenol-d5	*97*		*11 - 120*	*04/03/13 08:16*	*04/03/13 17:24*	*1*
p-Terphenyl-d14	*101*		*65 - 153*	*04/03/13 08:16*	*04/03/13 17:24*	*1*

Lab Sample ID: LCS 480-110597/2-A
Matrix: Solid
Analysis Batch: 110627

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 110597

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	3300	3560		ug/Kg		108	55 - 125
2-Chlorophenol	3300	3140		ug/Kg		95	38 - 120
4-Chloro-3-methylphenol	3300	3630		ug/Kg		110	49 - 125
4-Nitrophenol	3300	3810		ug/Kg		115	43 - 137
Acenaphthene	3300	3510		ug/Kg		106	53 - 120

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

Lab Sample ID: LCS 480-110597/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110627 — **Prep Batch: 110597**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-ethylhexyl) phthalate	3300	3540		ug/Kg		107	61 - 133
Fluorene	3300	3580		ug/Kg		108	63 - 126
Hexachloroethane	3300	2990		ug/Kg		91	41 - 120
N-Nitrosodi-n-propylamine	3300	3570		ug/Kg		108	46 - 120
Pentachlorophenol	3300	3140		ug/Kg		95	33 - 136
Phenol	3300	3280		ug/Kg		99	36 - 120
Pyrene	3300	3420		ug/Kg		104	51 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*98*		*39 - 146*
2-Fluorobiphenyl	*95*		*37 - 120*
2-Fluorophenol	*89*		*18 - 120*
Nitrobenzene-d5	*98*		*34 - 132*
Phenol-d5	*99*		*11 - 120*
p-Terphenyl-d14	*97*		*65 - 153*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-109717/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110081 — **Prep Batch: 109717**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		1.1	0.25	mg/Kg		03/28/13 15:00	03/29/13 12:37	1

Lab Sample ID: LCSSRM 480-109717/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110081 — **Prep Batch: 109717**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	136	129.5		mg/Kg		95.3	73.1 - 127.2

Lab Sample ID: 480-35127-5 MS — **Client Sample ID: NFR-15 (1-5)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110081 — **Prep Batch: 109717**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	12.4		48.5	55.90		mg/Kg	☼	90	75 - 125

Lab Sample ID: 480-35127-5 MSD — **Client Sample ID: NFR-15 (1-5)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110081 — **Prep Batch: 109717**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	12.4		46.1	53.31		mg/Kg	☼	89	75 - 125	5	20

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

GC/MS Semi VOA

Prep Batch: 109847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35127-5	NFR-15 (1-5)	Total/NA	Solid	3550B	
480-35127-5 MS	NFR-15 (1-5)	Total/NA	Solid	3550B	
480-35127-5 MSD	NFR-15 (1-5)	Total/NA	Solid	3550B	
480-35127-6	NFR-16 (0-6)	Total/NA	Solid	3550B	
480-35127-8	NFR-16 (1-5)	Total/NA	Solid	3550B	
480-35127-11	NFR-17 (1-5)	Total/NA	Solid	3550B	
LCS 480-109847/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 480-109847/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 109909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35127-5	NFR-15 (1-5)	Total/NA	Solid	8270C	109847
480-35127-5 MS	NFR-15 (1-5)	Total/NA	Solid	8270C	109847
480-35127-5 MSD	NFR-15 (1-5)	Total/NA	Solid	8270C	109847
480-35127-6	NFR-16 (0-6)	Total/NA	Solid	8270C	109847
480-35127-8	NFR-16 (1-5)	Total/NA	Solid	8270C	109847
480-35127-11	NFR-17 (1-5)	Total/NA	Solid	8270C	109847
LCS 480-109847/2-A	Lab Control Sample	Total/NA	Solid	8270C	109847
MB 480-109847/1-A	Method Blank	Total/NA	Solid	8270C	109847

Prep Batch: 110597

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35127-3	NFR-15 (0-6)	Total/NA	Solid	3550B	
LCS 480-110597/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 480-110597/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 110627

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35127-3	NFR-15 (0-6)	Total/NA	Solid	8270C	110597
LCS 480-110597/2-A	Lab Control Sample	Total/NA	Solid	8270C	110597
MB 480-110597/1-A	Method Blank	Total/NA	Solid	8270C	110597

Metals

Prep Batch: 109717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35127-1	NFR-14 (6-12)	Total/NA	Solid	3050B	
480-35127-2	NFR-14 (1-2)	Total/NA	Solid	3050B	
480-35127-3	NFR-15 (0-6)	Total/NA	Solid	3050B	
480-35127-4	NFR-15 (6-12)	Total/NA	Solid	3050B	
480-35127-5	NFR-15 (1-5)	Total/NA	Solid	3050B	
480-35127-5 MS	NFR-15 (1-5)	Total/NA	Solid	3050B	
480-35127-5 MSD	NFR-15 (1-5)	Total/NA	Solid	3050B	
480-35127-6	NFR-16 (0-6)	Total/NA	Solid	3050B	
480-35127-7	NFR-16 (6-12)	Total/NA	Solid	3050B	
480-35127-8	NFR-16 (1-5)	Total/NA	Solid	3050B	
480-35127-9	NFR-17 (0-6)	Total/NA	Solid	3050B	
480-35127-10	NFR-17 (6-12)	Total/NA	Solid	3050B	
480-35127-11	NFR-17 (1-5)	Total/NA	Solid	3050B	
480-35127-12	NFR-18 (0-6)	Total/NA	Solid	3050B	

Metals (Continued)

Prep Batch: 109717 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35127-13	NFR-18 (6-12)	Total/NA	Solid	3050B	
480-35127-14	NFR-18 (1-2)	Total/NA	Solid	3050B	
480-35127-15	NFR-19 (0-6)	Total/NA	Solid	3050B	
480-35127-16	NFR-19 (6-12)	Total/NA	Solid	3050B	
480-35127-17	NFR-19 (1-2)	Total/NA	Solid	3050B	
480-35127-18	NFR-20 (0-6)	Total/NA	Solid	3050B	
480-35127-19	NFR-20 (6-12)	Total/NA	Solid	3050B	
480-35127-20	NFR-20 (1-2)	Total/NA	Solid	3050B	
LCSSRM 480-109717/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-109717/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 110081

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35127-1	NFR-14 (6-12)	Total/NA	Solid	6010B	109717
480-35127-2	NFR-14 (1-2)	Total/NA	Solid	6010B	109717
480-35127-3	NFR-15 (0-6)	Total/NA	Solid	6010B	109717
480-35127-4	NFR-15 (6-12)	Total/NA	Solid	6010B	109717
480-35127-5	NFR-15 (1-5)	Total/NA	Solid	6010B	109717
480-35127-5 MS	NFR-15 (1-5)	Total/NA	Solid	6010B	109717
480-35127-5 MSD	NFR-15 (1-5)	Total/NA	Solid	6010B	109717
480-35127-6	NFR-16 (0-6)	Total/NA	Solid	6010B	109717
480-35127-7	NFR-16 (6-12)	Total/NA	Solid	6010B	109717
480-35127-8	NFR-16 (1-5)	Total/NA	Solid	6010B	109717
480-35127-9	NFR-17 (0-6)	Total/NA	Solid	6010B	109717
480-35127-10	NFR-17 (6-12)	Total/NA	Solid	6010B	109717
480-35127-11	NFR-17 (1-5)	Total/NA	Solid	6010B	109717
480-35127-12	NFR-18 (0-6)	Total/NA	Solid	6010B	109717
480-35127-13	NFR-18 (6-12)	Total/NA	Solid	6010B	109717
480-35127-14	NFR-18 (1-2)	Total/NA	Solid	6010B	109717
480-35127-15	NFR-19 (0-6)	Total/NA	Solid	6010B	109717
480-35127-16	NFR-19 (6-12)	Total/NA	Solid	6010B	109717
480-35127-17	NFR-19 (1-2)	Total/NA	Solid	6010B	109717
480-35127-18	NFR-20 (0-6)	Total/NA	Solid	6010B	109717
480-35127-19	NFR-20 (6-12)	Total/NA	Solid	6010B	109717
480-35127-20	NFR-20 (1-2)	Total/NA	Solid	6010B	109717
LCSSRM 480-109717/2-A	Lab Control Sample	Total/NA	Solid	6010B	109717
MB 480-109717/1-A	Method Blank	Total/NA	Solid	6010B	109717

General Chemistry

Analysis Batch: 109706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35127-1	NFR-14 (6-12)	Total/NA	Solid	Moisture	
480-35127-2	NFR-14 (1-2)	Total/NA	Solid	Moisture	
480-35127-3	NFR-15 (0-6)	Total/NA	Solid	Moisture	
480-35127-4	NFR-15 (6-12)	Total/NA	Solid	Moisture	
480-35127-5	NFR-15 (1-5)	Total/NA	Solid	Moisture	
480-35127-5 MS	NFR-15 (1-5)	Total/NA	Solid	Moisture	
480-35127-5 MSD	NFR-15 (1-5)	Total/NA	Solid	Moisture	
480-35127-6	NFR-16 (0-6)	Total/NA	Solid	Moisture	

General Chemistry (Continued)

Analysis Batch: 109706 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35127-7	NFR-16 (6-12)	Total/NA	Solid	Moisture	
480-35127-8	NFR-16 (1-5)	Total/NA	Solid	Moisture	
480-35127-9	NFR-17 (0-6)	Total/NA	Solid	Moisture	
480-35127-10	NFR-17 (6-12)	Total/NA	Solid	Moisture	
480-35127-11	NFR-17 (1-5)	Total/NA	Solid	Moisture	
480-35127-12	NFR-18 (0-6)	Total/NA	Solid	Moisture	
480-35127-13	NFR-18 (6-12)	Total/NA	Solid	Moisture	
480-35127-14	NFR-18 (1-2)	Total/NA	Solid	Moisture	
480-35127-15	NFR-19 (0-6)	Total/NA	Solid	Moisture	
480-35127-16	NFR-19 (6-12)	Total/NA	Solid	Moisture	
480-35127-17	NFR-19 (1-2)	Total/NA	Solid	Moisture	
480-35127-18	NFR-20 (0-6)	Total/NA	Solid	Moisture	
480-35127-19	NFR-20 (6-12)	Total/NA	Solid	Moisture	
480-35127-20	NFR-20 (1-2)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-14 (6-12)

Lab Sample ID: 480-35127-1
Date Collected: 03/25/13 12:55
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 85.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 12:41	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-14 (1-2)

Lab Sample ID: 480-35127-2
Date Collected: 03/25/13 13:00
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 12:48	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-15 (0-6)

Lab Sample ID: 480-35127-3
Date Collected: 03/25/13 13:15
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			110597	04/03/13 08:16	CM	TAL BUF
Total/NA	Analysis	8270C		5	110627	04/03/13 21:09	HTL	TAL BUF
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 12:50	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-15 (6-12)

Lab Sample ID: 480-35127-4
Date Collected: 03/25/13 13:20
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 92.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 12:53	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-15 (1-5)

Lab Sample ID: 480-35127-5
Date Collected: 03/25/13 13:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			109847	03/29/13 06:49	DE	TAL BUF
Total/NA	Analysis	8270C		1	109909	03/29/13 17:03	HTL	TAL BUF
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 12:55	LH	TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-15 (1-5)

Lab Sample ID: 480-35127-5
Date Collected: 03/25/13 13:30
Matrix: Solid
Date Received: 03/28/13 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-16 (0-6)

Lab Sample ID: 480-35127-6
Date Collected: 03/25/13 13:40
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 93.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			109847	03/29/13 06:49	DE	TAL BUF
Total/NA	Analysis	8270C		5	109909	03/29/13 18:18	HTL	TAL BUF
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:06	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-16 (6-12)

Lab Sample ID: 480-35127-7
Date Collected: 03/25/13 13:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:08	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-16 (1-5)

Lab Sample ID: 480-35127-8
Date Collected: 03/25/13 13:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			109847	03/29/13 06:49	DE	TAL BUF
Total/NA	Analysis	8270C		1	109909	03/29/13 18:43	HTL	TAL BUF
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:15	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-17 (0-6)

Lab Sample ID: 480-35127-9
Date Collected: 03/25/13 13:55
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:17	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-17 (6-12)

Lab Sample ID: 480-35127-10
Date Collected: 03/25/13 14:00
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:20	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-17 (1-5)

Lab Sample ID: 480-35127-11
Date Collected: 03/25/13 14:05
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			109847	03/29/13 06:49	DE	TAL BUF
Total/NA	Analysis	8270C		1	109909	03/29/13 19:08	HTL	TAL BUF
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:22	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-18 (0-6)

Lab Sample ID: 480-35127-12
Date Collected: 03/25/13 14:10
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 89.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:24	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-18 (6-12)

Lab Sample ID: 480-35127-13
Date Collected: 03/25/13 14:15
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:27	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-18 (1-2)

Lab Sample ID: 480-35127-14
Date Collected: 03/25/13 14:20
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:29	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-19 (0-6)

Lab Sample ID: 480-35127-15
Date Collected: 03/25/13 14:25
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:31	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-19 (6-12)

Lab Sample ID: 480-35127-16
Date Collected: 03/25/13 14:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:33	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-19 (1-2)

Lab Sample ID: 480-35127-17
Date Collected: 03/25/13 14:35
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:36	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-20 (0-6)

Lab Sample ID: 480-35127-18
Date Collected: 03/25/13 14:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:42	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-20 (6-12)

Lab Sample ID: 480-35127-19
Date Collected: 03/25/13 14:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 89.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:45	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Client Sample ID: NFR-20 (1-2)

Date Collected: 03/25/13 14:55
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35127-20

Matrix: Solid
Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109717	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110081	03/29/13 13:47	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-13
Georgia	State Program	4	N/A	03-31-13 *
Georgia	State Program	4	956	06-30-13
Georgia	State Program	4	956	06-30-13
Illinois	NELAP	5	200003	09-30-13
Iowa	State Program	7	374	03-01-13 *
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-13 *
Louisiana	NELAP	6	02031	06-30-13
Maine	State Program	1	NY00044	12-04-13
Maryland	State Program	3	294	03-31-13 *
Massachusetts	State Program	1	M-NY044	06-30-13
Michigan	State Program	5	9937	04-01-13 *
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-13
New Hampshire	NELAP	1	2337	11-17-13
New Jersey	NELAP	2	NY455	06-30-13
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-13 *
Oklahoma	State Program	6	9421	08-31-13
Oregon	NELAP	10	NY200003	06-09-13
Pennsylvania	NELAP	3	68-00281	07-31-13
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-13 *
Texas	NELAP	6	T104704412-11-2	07-31-13
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-13
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-13

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010B	Metals (ICP)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

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 BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35127-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-35127-1	NFR-14 (6-12)	Solid	03/25/13 12:55	03/28/13 01:30
480-35127-2	NFR-14 (1-2)	Solid	03/25/13 13:00	03/28/13 01:30
480-35127-3	NFR-15 (0-6)	Solid	03/25/13 13:15	03/28/13 01:30
480-35127-4	NFR-15 (6-12)	Solid	03/25/13 13:20	03/28/13 01:30
480-35127-5	NFR-15 (1-5)	Solid	03/25/13 13:30	03/28/13 01:30
480-35127-6	NFR-16 (0-6)	Solid	03/25/13 13:40	03/28/13 01:30
480-35127-7	NFR-16 (6-12)	Solid	03/25/13 13:45	03/28/13 01:30
480-35127-8	NFR-16 (1-5)	Solid	03/25/13 13:50	03/28/13 01:30
480-35127-9	NFR-17 (0-6)	Solid	03/25/13 13:55	03/28/13 01:30
480-35127-10	NFR-17 (6-12)	Solid	03/25/13 14:00	03/28/13 01:30
480-35127-11	NFR-17 (1-5)	Solid	03/25/13 14:05	03/28/13 01:30
480-35127-12	NFR-18 (0-6)	Solid	03/25/13 14:10	03/28/13 01:30
480-35127-13	NFR-18 (6-12)	Solid	03/25/13 14:15	03/28/13 01:30
480-35127-14	NFR-18 (1-2)	Solid	03/25/13 14:20	03/28/13 01:30
480-35127-15	NFR-19 (0-6)	Solid	03/25/13 14:25	03/28/13 01:30
480-35127-16	NFR-19 (6-12)	Solid	03/25/13 14:30	03/28/13 01:30
480-35127-17	NFR-19 (1-2)	Solid	03/25/13 14:35	03/28/13 01:30
480-35127-18	NFR-20 (0-6)	Solid	03/25/13 14:45	03/28/13 01:30
480-35127-19	NFR-20 (6-12)	Solid	03/25/13 14:50	03/28/13 01:30
480-35127-20	NFR-20 (1-2)	Solid	03/25/13 14:55	03/28/13 01:30

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM: Hoffman, Sally	Carrier Tracking No(s)	COC No: 480-34278-8744 5
Client Contact: Mr. Rory Woodmansee	Phone	E-Mail: sally hoffman@testamericainc.com		Page: Page 5 of 13
Company: C&S Engineers, Inc.				Job #
Address: 499 Col. Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not required			
Email: rwoodmansee@cscos.com	WO #			
Project Name: Former Arthur Kill Correctional Facility	Project #: 48006338			
Site	SSOW#			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - Lead	8270C - TCL SVOA - OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
NFR-14 (6-12)	3/25/13	1255		Solid			X			
NFR-14 (1-2)		1300		Solid			X			
NFR-15 (0-6)		1315		Solid			X	X		
NFR-15 (6-12)		1320		Solid			X			
NFR-15 (1-5)		1330		Solid			X	X		
NFR-15 (1-5) MS		1330		Solid				X		
NFR-15 (1-5) MSD		1330		Solid				X		
NFR-16 (0-6)		1340		Solid			X	X		
NFR-16 (6-12)		1345		Solid			X			
NFR-16 (1-5)		1350		Solid			X	X		
NFR-17 (0-6)		1355		Solid			X			

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Rory Woodmansee	3/27/13 1115	Syr	[illegible]	3-27-13, 1115	Syr
RE	3-27-13 1900		[illegible]	3/28/30 0130	

Custody Seals Intact:	Custody Seal No :	Cooler Temperature(s) °C and Other Remarks
Δ Yes Δ No		

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM: Hoffman, Sally	Carrier Tracking No(s)	COC No: 480-34278-8744.6
Client Contact: Mr. Rory Woodmansee	Phone	E-Mail: sally.hoffman@testamericainc.com		Page: Page 6 of 13
Company: C&S Engineers, Inc				Job #
Address: 499 Col. Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not required			
Email: rwoodmansee@cscos.com	WO #			
Project Name: Former Arthur Kill Correctional Facility	Project #: 48006338			
Site	SSOW#			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - Lead	8270C - TCL SVOA - OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
NFR-17 (6-12)	3/25/13	1400		Solid			X			
NFR-17 (1-5)		1405		Solid			X	X		
NFR-18 (0-6)		1410		Solid			X			
NFR-18 (6-12)		1415		Solid			X			
NFR-18 (1-2)		1420		Solid			X			
NFR-19 (0-6)		1425		Solid			X			
NFR-19 (6-12)		1430		Solid			X			
NFR-19 (1-2)		1435		Solid			X			
NFR-20 (0-6)		1445		Solid			X			
NFR-20 (6-12)		1450		Solid			X			
NFR-20 (1-2)		1455		Solid			X			

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date:	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	3/27/13 1115	C&S	[signature]	3-27-13, 11:15	SYR
[signature]	3-27-13, 1900	SYR	[signature]	3/28/13 0130	TA

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks

Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-35127-1

Login Number: 35127
List Number: 1
Creator: Janish, Carl

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is 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 sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	ch2m hill
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-35131-1
Client Project/Site: Former Arthur Kill Correctional Facility

For:
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212

Attn: Mr. Rory Woodmansee

Authorized for release by:
4/4/2013 11:22:29 AM
Joe Giacomazza
Project Administrator
joe.giacomazza@testamericainc.com

Designee for

Sally Hoffman
Project Manager II
sally.hoffman@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Qualifiers

GC/MS Semi VOA

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.
*	LCS or LCSD exceeds the control limits

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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)

Job ID: 480-35131-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-35131-1

Receipt
The samples were received on 3/28/2013 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.8º C, 4.3º C and 4.4º C.

GC/MS Semi VOA
Method(s) 8270C: The following sample was diluted due to the nature of the sample matrix: NFR-26 (1-5) (480-35131-18). Elevated reporting limits (RLs) are provided.

Method(s) 8270C: The laboratory control sample (LCS) for preparation batch 480-109847 exceeded control limits for mulitple analytes. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8270C: The continuing calibration verification (CCV) for several analytes associated with analytical batch 480-109909 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other analytical or quality issues were noted.

Metals
No analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-21 (0-6) — Lab Sample ID: 480-35131-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	61.8		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-21 (6-12) — Lab Sample ID: 480-35131-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	53.7		1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-21 (1-2) — Lab Sample ID: 480-35131-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	19.5		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-22 (0-6) — Lab Sample ID: 480-35131-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	110		1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-22 (6-12) — Lab Sample ID: 480-35131-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	67.7		1.3	0.31	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-22 (1-2) — Lab Sample ID: 480-35131-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	23.2		1.2	0.28	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-23 (0-6) — Lab Sample ID: 480-35131-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	65.6		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-23 (6-12) — Lab Sample ID: 480-35131-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	15.0		1.2	0.28	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-23 (1-2) — Lab Sample ID: 480-35131-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo(a)anthracene	32	J	180	3.1	ug/Kg	1	☼	8270C	Total/NA
Benzo(a)pyrene	34	J	180	4.3	ug/Kg	1	☼	8270C	Total/NA
Benzo(b)fluoranthene	64	J	180	3.5	ug/Kg	1	☼	8270C	Total/NA
Benzo(g,h,i)perylene	8.1	J	180	2.1	ug/Kg	1	☼	8270C	Total/NA
Benzo(k)fluoranthene	27	J	180	2.0	ug/Kg	1	☼	8270C	Total/NA
Chrysene	37	J	180	1.8	ug/Kg	1	☼	8270C	Total/NA
Fluoranthene	38	J	180	2.6	ug/Kg	1	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	8.3	J	180	4.9	ug/Kg	1	☼	8270C	Total/NA
Phenanthrene	9.1	J	180	3.8	ug/Kg	1	☼	8270C	Total/NA
Pyrene	33	J	180	1.2	ug/Kg	1	☼	8270C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-23 (1-2) (Continued) — Lab Sample ID: 480-35131-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	9.8		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-24 (0-6) — Lab Sample ID: 480-35131-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	79.5		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-24 (6-12) — Lab Sample ID: 480-35131-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	47.9		1.2	0.30	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-24 (1-2) — Lab Sample ID: 480-35131-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	22.0		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-25 (0-6) — Lab Sample ID: 480-35131-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	92.3		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-25 (6-12) — Lab Sample ID: 480-35131-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	124		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-25 (1-2) — Lab Sample ID: 480-35131-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	78.0		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-26 (0-6) — Lab Sample ID: 480-35131-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	84.0		1.1	0.27	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-26 (6-12) — Lab Sample ID: 480-35131-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	89.0		1.2	0.30	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-26 (1-5) — Lab Sample ID: 480-35131-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	78	J	980	12	ug/Kg	5	☼	8270C	Total/NA
Acenaphthene	160	J	980	11	ug/Kg	5	☼	8270C	Total/NA
Acenaphthylene	43	J	980	7.9	ug/Kg	5	☼	8270C	Total/NA
Anthracene	370	J	980	25	ug/Kg	5	☼	8270C	Total/NA
Benzo(a)anthracene	1000		980	17	ug/Kg	5	☼	8270C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: NFR-26 (1-5) (Continued) — Lab Sample ID: 480-35131-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo(a)pyrene	870	J	980	23	ug/Kg	5	☼	8270C	Total/NA
Benzo(b)fluoranthene	1000		980	19	ug/Kg	5	☼	8270C	Total/NA
Benzo(g,h,i)perylene	180	J	980	12	ug/Kg	5	☼	8270C	Total/NA
Benzo(k)fluoranthene	650	J	980	11	ug/Kg	5	☼	8270C	Total/NA
Carbazole	130	J	980	11	ug/Kg	5	☼	8270C	Total/NA
Chrysene	920	J	980	9.7	ug/Kg	5	☼	8270C	Total/NA
Dibenz(a,h)anthracene	61	J	980	11	ug/Kg	5	☼	8270C	Total/NA
Dibenzofuran	99	J	980	10	ug/Kg	5	☼	8270C	Total/NA
Fluoranthene	1900		980	14	ug/Kg	5	☼	8270C	Total/NA
Fluorene	160	J	980	22	ug/Kg	5	☼	8270C	Total/NA
Indeno(1,2,3-cd)pyrene	190	J	980	27	ug/Kg	5	☼	8270C	Total/NA
Naphthalene	150	J	980	16	ug/Kg	5	☼	8270C	Total/NA
Phenanthrene	1500		980	20	ug/Kg	5	☼	8270C	Total/NA
Phenol	180	J	980	100	ug/Kg	5	☼	8270C	Total/NA
Pyrene	1500		980	6.3	ug/Kg	5	☼	8270C	Total/NA
Lead	75.1		1.2	0.30	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-27 (0-6) — Lab Sample ID: 480-35131-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	143		1.0	0.25	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-27 (6-12) — Lab Sample ID: 480-35131-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	66.4		1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-21 (0-6)
Date Collected: 03/25/13 15:00
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-1
Matrix: Solid
Percent Solids: 90.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	61.8		1.1	0.27	mg/Kg	☼	03/28/13 15:00	03/29/13 15:10	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-21 (6-12)
Date Collected: 03/25/13 15:05
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-2
Matrix: Solid
Percent Solids: 88.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	53.7		1.1	0.26	mg/Kg	☼	03/28/13 15:00	03/29/13 15:12	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-21 (1-2)
Date Collected: 03/25/13 15:10
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-3
Matrix: Solid
Percent Solids: 90.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	19.5		1.1	0.27	mg/Kg	☼	03/28/13 15:00	03/29/13 15:15	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-22 (0-6)
Date Collected: 03/25/13 15:20
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-4
Matrix: Solid
Percent Solids: 91.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	110		1.1	0.26	mg/Kg	☼	03/28/13 15:00	03/29/13 15:17	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-22 (6-12)
Date Collected: 03/25/13 15:25
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-5
Matrix: Solid
Percent Solids: 86.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	67.7		1.3	0.31	mg/Kg	☼	03/28/13 15:00	03/29/13 15:33	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-22 (1-2)
Date Collected: 03/25/13 15:30
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-6
Matrix: Solid
Percent Solids: 89.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	23.2		1.2	0.28	mg/Kg	☼	03/28/13 15:00	03/29/13 15:35	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-23 (0-6)
Date Collected: 03/25/13 15:35
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-7
Matrix: Solid
Percent Solids: 92.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	65.6		1.1	0.27	mg/Kg	☼	03/28/13 15:00	03/29/13 15:38	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-23 (6-12)
Date Collected: 03/25/13 15:40
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-8
Matrix: Solid
Percent Solids: 86.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	15.0		1.2	0.28	mg/Kg	☼	03/28/13 15:00	03/29/13 15:40	1

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-23 (1-2)
Date Collected: 03/25/13 15:45
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-9
Matrix: Solid
Percent Solids: 92.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		180	39	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
2,4,6-Trichlorophenol	ND		180	12	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
2,4-Dichlorophenol	ND		180	9.4	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
2,4-Dimethylphenol	ND		180	48	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
2,4-Dinitrophenol	ND		350	63	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
2,4-Dinitrotoluene	ND		180	28	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
2,6-Dinitrotoluene	ND		180	44	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
2-Chloronaphthalene	ND		180	12	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
2-Chlorophenol	ND		180	9.1	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
2-Methylnaphthalene	ND		180	2.2	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
2-Methylphenol	ND		180	5.5	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
2-Nitroaniline	ND	*	350	57	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
2-Nitrophenol	ND		180	8.2	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
3,3'-Dichlorobenzidine	ND		180	160	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
3-Nitroaniline	ND		350	41	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
4,6-Dinitro-2-methylphenol	ND		350	62	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
4-Bromophenyl phenyl ether	ND		180	57	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
4-Chloro-3-methylphenol	ND		180	7.4	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
4-Chloroaniline	ND		180	53	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
4-Chlorophenyl phenyl ether	ND		180	3.8	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
4-Methylphenol	ND		350	10	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
4-Nitroaniline	ND		350	20	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
4-Nitrophenol	ND		350	43	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Acenaphthene	ND		180	2.1	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Acenaphthylene	ND		180	1.5	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Acetophenone	ND		180	9.2	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Anthracene	ND		180	4.6	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Atrazine	ND		180	8.0	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Benzaldehyde	ND		180	20	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Benzo(a)anthracene	**32**	**J**	180	3.1	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Benzo(a)pyrene	**34**	**J**	180	4.3	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Benzo(b)fluoranthene	**64**	**J**	180	3.5	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Benzo(g,h,i)perylene	**8.1**	**J**	180	2.1	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Benzo(k)fluoranthene	**27**	**J**	180	2.0	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Biphenyl	ND		180	11	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
bis (2-chloroisopropyl) ether	ND	*	180	19	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Bis(2-chloroethoxy)methane	ND		180	9.7	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Bis(2-chloroethyl)ether	ND		180	15	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Bis(2-ethylhexyl) phthalate	ND		180	58	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Butyl benzyl phthalate	ND		180	48	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Caprolactam	ND		180	77	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Carbazole	ND		180	2.1	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Chrysene	**37**	**J**	180	1.8	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Dibenz(a,h)anthracene	ND		180	2.1	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Dibenzofuran	ND		180	1.9	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Diethyl phthalate	ND		180	5.4	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Dimethyl phthalate	ND		180	4.7	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Di-n-butyl phthalate	ND		180	62	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Di-n-octyl phthalate	ND		180	4.2	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-23 (1-2)

Date Collected: 03/25/13 15:45
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-9

Matrix: Solid
Percent Solids: 92.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**38**	**J**	180	2.6	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Fluorene	ND		180	4.1	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Hexachlorobenzene	ND		180	8.9	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Hexachlorobutadiene	ND		180	9.2	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Hexachlorocyclopentadiene	ND		180	54	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Hexachloroethane	ND		180	14	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Indeno(1,2,3-cd)pyrene	**8.3**	**J**	180	4.9	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Isophorone	ND		180	8.9	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Naphthalene	ND		180	3.0	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Nitrobenzene	ND		180	7.9	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
N-Nitrosodi-n-propylamine	ND	*	180	14	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
N-Nitrosodiphenylamine	ND		180	9.8	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Pentachlorophenol	ND		350	61	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Phenanthrene	**9.1**	**J**	180	3.8	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Phenol	ND		180	19	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1
Pyrene	**33**	**J**	180	1.2	ug/Kg	☼	03/29/13 06:49	03/29/13 19:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*85*		*39 - 146*	*03/29/13 06:49*	*03/29/13 19:33*	*1*
2-Fluorobiphenyl	*88*		*37 - 120*	*03/29/13 06:49*	*03/29/13 19:33*	*1*
2-Fluorophenol	*88*		*18 - 120*	*03/29/13 06:49*	*03/29/13 19:33*	*1*
Nitrobenzene-d5	*91*		*34 - 132*	*03/29/13 06:49*	*03/29/13 19:33*	*1*
Phenol-d5	*92*		*11 - 120*	*03/29/13 06:49*	*03/29/13 19:33*	*1*
p-Terphenyl-d14	*91*		*65 - 153*	*03/29/13 06:49*	*03/29/13 19:33*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**9.8**		1.1	0.27	mg/Kg	☼	03/28/13 15:00	03/29/13 15:42	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-24 (0-6)

Lab Sample ID: 480-35131-10

Date Collected: 03/25/13 15:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 91.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	79.5		1.1	0.27	mg/Kg	☼	03/28/13 15:00	03/29/13 15:44	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-24 (6-12)
Date Collected: 03/25/13 15:55
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-11
Matrix: Solid
Percent Solids: 86.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	47.9		1.2	0.30	mg/Kg	☼	03/28/13 15:00	03/29/13 15:47	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-24 (1-2)
Date Collected: 03/25/13 16:00
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-12
Matrix: Solid
Percent Solids: 85.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	22.0		1.2	0.29	mg/Kg	☼	03/28/13 15:00	03/29/13 15:49	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-25 (0-6)

Lab Sample ID: 480-35131-13

Date Collected: 03/25/13 16:05
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 91.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	92.3		1.2	0.29	mg/Kg	☼	03/28/13 15:00	03/29/13 15:51	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-25 (6-12)

Lab Sample ID: 480-35131-14

Date Collected: 03/25/13 16:10
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 82.2

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	124		1.2	0.29	mg/Kg	☼	03/28/13 15:00	03/29/13 15:54	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-25 (1-2)

Lab Sample ID: 480-35131-15

Date Collected: 03/25/13 16:15
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	78.0		1.1	0.27	mg/Kg	☼	03/28/13 15:00	03/29/13 16:01	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-26 (0-6)

Lab Sample ID: 480-35131-16

Date Collected: 03/26/13 08:20
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 85.6

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	84.0		1.1	0.27	mg/Kg	☼	03/28/13 15:00	03/29/13 16:03	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-26 (6-12)

Lab Sample ID: 480-35131-17

Date Collected: 03/26/13 08:25
Date Received: 03/28/13 01:30

Matrix: Solid
Percent Solids: 87.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	89.0		1.2	0.30	mg/Kg	☼	03/28/13 15:00	03/29/13 16:05	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-26 (1-5)

Date Collected: 03/26/13 08:30
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-18
Matrix: Solid
Percent Solids: 86.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		980	210	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
2,4,6-Trichlorophenol	ND		980	64	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
2,4-Dichlorophenol	ND		980	51	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
2,4-Dimethylphenol	ND		980	260	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
2,4-Dinitrophenol	ND		1900	340	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
2,4-Dinitrotoluene	ND		980	150	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
2,6-Dinitrotoluene	ND		980	240	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
2-Chloronaphthalene	ND		980	65	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
2-Chlorophenol	ND		980	49	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
2-Methylnaphthalene	**78**	**J**	980	12	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
2-Methylphenol	ND		980	30	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
2-Nitroaniline	ND	*	1900	310	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
2-Nitrophenol	ND		980	44	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
3,3'-Dichlorobenzidine	ND		980	850	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
3-Nitroaniline	ND		1900	220	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
4,6-Dinitro-2-methylphenol	ND		1900	330	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
4-Bromophenyl phenyl ether	ND		980	310	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
4-Chloro-3-methylphenol	ND		980	40	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
4-Chloroaniline	ND		980	280	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
4-Chlorophenyl phenyl ether	ND		980	21	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
4-Methylphenol	ND		1900	54	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
4-Nitroaniline	ND		1900	110	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
4-Nitrophenol	ND		1900	230	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Acenaphthene	**160**	**J**	980	11	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Acenaphthylene	**43**	**J**	980	7.9	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Acetophenone	ND		980	50	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Anthracene	**370**	**J**	980	25	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Atrazine	ND		980	43	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Benzaldehyde	ND		980	110	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Benzo(a)anthracene	**1000**		980	17	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Benzo(a)pyrene	**870**	**J**	980	23	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Benzo(b)fluoranthene	**1000**		980	19	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Benzo(g,h,i)perylene	**180**	**J**	980	12	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Benzo(k)fluoranthene	**650**	**J**	980	11	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Biphenyl	ND		980	60	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
bis (2-chloroisopropyl) ether	ND	*	980	100	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Bis(2-chloroethoxy)methane	ND		980	53	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Bis(2-chloroethyl)ether	ND		980	84	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Bis(2-ethylhexyl) phthalate	ND		980	310	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Butyl benzyl phthalate	ND		980	260	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Caprolactam	ND		980	420	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Carbazole	**130**	**J**	980	11	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Chrysene	**920**	**J**	980	9.7	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Dibenz(a,h)anthracene	**61**	**J**	980	11	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Dibenzofuran	**99**	**J**	980	10	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Diethyl phthalate	ND		980	29	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Dimethyl phthalate	ND		980	25	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Di-n-butyl phthalate	ND		980	330	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Di-n-octyl phthalate	ND		980	23	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-26 (1-5)

Date Collected: 03/26/13 08:30
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35131-18

Matrix: Solid
Percent Solids: 86.2

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoranthene	**1900**		980	14	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Fluorene	**160**	**J**	980	22	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Hexachlorobenzene	ND		980	48	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Hexachlorobutadiene	ND		980	50	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Hexachlorocyclopentadiene	ND		980	290	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Hexachloroethane	ND		980	75	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Indeno(1,2,3-cd)pyrene	**190**	**J**	980	27	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Isophorone	ND		980	48	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Naphthalene	**150**	**J**	980	16	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Nitrobenzene	ND		980	43	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
N-Nitrosodi-n-propylamine	ND	*	980	77	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
N-Nitrosodiphenylamine	ND		980	53	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Pentachlorophenol	ND		1900	330	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Phenanthrene	**1500**		980	20	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Phenol	**180**	**J**	980	100	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5
Pyrene	**1500**		980	6.3	ug/Kg	☼	03/29/13 06:49	03/29/13 19:58	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*47*		*39 - 146*	*03/29/13 06:49*	*03/29/13 19:58*	*5*
2-Fluorobiphenyl	*89*		*37 - 120*	*03/29/13 06:49*	*03/29/13 19:58*	*5*
2-Fluorophenol	*88*		*18 - 120*	*03/29/13 06:49*	*03/29/13 19:58*	*5*
Nitrobenzene-d5	*87*		*34 - 132*	*03/29/13 06:49*	*03/29/13 19:58*	*5*
Phenol-d5	*92*		*11 - 120*	*03/29/13 06:49*	*03/29/13 19:58*	*5*
p-Terphenyl-d14	*84*		*65 - 153*	*03/29/13 06:49*	*03/29/13 19:58*	*5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	**75.1**		1.2	0.30	mg/Kg	☼	03/28/13 15:00	03/29/13 16:08	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-27 (0-6)

Lab Sample ID: 480-35131-19

Date Collected: 03/26/13 08:40
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	143		1.0	0.25	mg/Kg	☼	03/28/13 15:00	03/29/13 16:10	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-27 (6-12)

Lab Sample ID: 480-35131-20

Date Collected: 03/26/13 08:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	66.4		1.2	0.29	mg/Kg	☼	03/28/13 15:00	03/29/13 16:12	1

Surrogate Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

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

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

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(39-146)	(37-120)	(18-120)	(34-132)	(11-120)	(65-153)
480-35131-9	NFR-23 (1-2)	85	88	88	91	92	91
480-35131-18	NFR-26 (1-5)	47	89	88	87	92	84
LCS 480-109847/2-A	Lab Control Sample	102	92	87	100	99	97
MB 480-109847/1-A	Method Blank	85	89	86	95	92	100

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = p-Terphenyl-d14

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

Lab Sample ID: MB 480-109847/1-A
Matrix: Solid
Analysis Batch: 109909

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 109847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		170	36	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2,4,6-Trichlorophenol	ND		170	11	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2,4-Dichlorophenol	ND		170	8.7	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2,4-Dimethylphenol	ND		170	45	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2,4-Dinitrophenol	ND		330	58	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2,4-Dinitrotoluene	ND		170	26	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2,6-Dinitrotoluene	ND		170	41	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2-Chloronaphthalene	ND		170	11	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2-Chlorophenol	ND		170	8.5	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2-Methylnaphthalene	ND		170	2.0	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2-Methylphenol	ND		170	5.1	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2-Nitroaniline	ND		330	53	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
2-Nitrophenol	ND		170	7.6	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
3,3'-Dichlorobenzidine	ND		170	150	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
3-Nitroaniline	ND		330	38	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4,6-Dinitro-2-methylphenol	ND		330	58	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Bromophenyl phenyl ether	ND		170	53	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Chloro-3-methylphenol	ND		170	6.9	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Chloroaniline	ND		170	49	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Chlorophenyl phenyl ether	ND		170	3.6	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Methylphenol	ND		330	9.3	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Nitroaniline	ND		330	19	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
4-Nitrophenol	ND		330	40	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Acenaphthene	ND		170	2.0	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Acenaphthylene	ND		170	1.4	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Acetophenone	ND		170	8.6	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Anthracene	ND		170	4.3	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Atrazine	ND		170	7.4	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Benzaldehyde	ND		170	18	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Benzo(a)anthracene	ND		170	2.9	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Benzo(a)pyrene	ND		170	4.0	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Benzo(b)fluoranthene	ND		170	3.2	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Benzo(g,h,i)perylene	ND		170	2.0	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Benzo(k)fluoranthene	ND		170	1.8	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Biphenyl	ND		170	10	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
bis (2-chloroisopropyl) ether	ND		170	17	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Bis(2-chloroethoxy)methane	ND		170	9.1	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Bis(2-chloroethyl)ether	ND		170	14	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Bis(2-ethylhexyl) phthalate	ND		170	54	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Butyl benzyl phthalate	ND		170	45	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Caprolactam	ND		170	72	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Carbazole	ND		170	1.9	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Chrysene	ND		170	1.7	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Dibenz(a,h)anthracene	ND		170	2.0	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Dibenzofuran	ND		170	1.7	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Diethyl phthalate	ND		170	5.0	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Dimethyl phthalate	ND		170	4.4	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Di-n-butyl phthalate	ND		170	58	ug/Kg		03/29/13 05:49	03/29/13 14:08	1

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

Lab Sample ID: MB 480-109847/1-A
Matrix: Solid
Analysis Batch: 109909

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 109847

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-octyl phthalate	ND		170	3.9	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Fluoranthene	ND		170	2.4	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Fluorene	ND		170	3.8	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Hexachlorobenzene	ND		170	8.3	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Hexachlorobutadiene	ND		170	8.5	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Hexachlorocyclopentadiene	ND		170	50	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Hexachloroethane	ND		170	13	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Indeno(1,2,3-cd)pyrene	ND		170	4.6	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Isophorone	ND		170	8.3	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Naphthalene	ND		170	2.8	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Nitrobenzene	ND		170	7.4	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
N-Nitrosodi-n-propylamine	ND		170	13	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
N-Nitrosodiphenylamine	ND		170	9.1	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Pentachlorophenol	ND		330	57	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Phenanthrene	ND		170	3.5	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Phenol	ND		170	18	ug/Kg		03/29/13 05:49	03/29/13 14:08	1
Pyrene	ND		170	1.1	ug/Kg		03/29/13 05:49	03/29/13 14:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*85*		*39 - 146*	*03/29/13 05:49*	*03/29/13 14:08*	*1*
2-Fluorobiphenyl	*89*		*37 - 120*	*03/29/13 05:49*	*03/29/13 14:08*	*1*
2-Fluorophenol	*86*		*18 - 120*	*03/29/13 05:49*	*03/29/13 14:08*	*1*
Nitrobenzene-d5	*95*		*34 - 132*	*03/29/13 05:49*	*03/29/13 14:08*	*1*
Phenol-d5	*92*		*11 - 120*	*03/29/13 05:49*	*03/29/13 14:08*	*1*
p-Terphenyl-d14	*100*		*65 - 153*	*03/29/13 05:49*	*03/29/13 14:08*	*1*

Lab Sample ID: LCS 480-109847/2-A
Matrix: Solid
Analysis Batch: 109909

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 109847

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2,4-Dinitrotoluene	3310	3590		ug/Kg		109	55 - 125
2-Chlorophenol	3310	3180		ug/Kg		96	38 - 120
4-Chloro-3-methylphenol	3310	3790		ug/Kg		115	49 - 125
4-Nitrophenol	3310	4240		ug/Kg		128	43 - 137
Acenaphthene	3310	3400		ug/Kg		103	53 - 120
Bis(2-ethylhexyl) phthalate	3310	3530		ug/Kg		107	61 - 133
Fluorene	3310	3560		ug/Kg		108	63 - 126
Hexachloroethane	3310	3140		ug/Kg		95	41 - 120
N-Nitrosodi-n-propylamine	3310	4000	*	ug/Kg		121	46 - 120
Pentachlorophenol	3310	3360		ug/Kg		102	33 - 136
Phenol	3310	3430		ug/Kg		104	36 - 120
Pyrene	3310	3450		ug/Kg		104	51 - 133

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*102*		*39 - 146*
2-Fluorobiphenyl	*92*		*37 - 120*

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

Lab Sample ID: LCS 480-109847/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 109909 — **Prep Batch: 109847**

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*87*		*18 - 120*
Nitrobenzene-d5	*100*		*34 - 132*
Phenol-d5	*99*		*11 - 120*
p-Terphenyl-d14	*97*		*65 - 153*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-109716/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110067 — **Prep Batch: 109716**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.93	0.22	mg/Kg		03/28/13 15:00	03/29/13 14:50	1

Lab Sample ID: LCSSRM 480-109716/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110067 — **Prep Batch: 109716**

Analyte			Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			136	137.8		mg/Kg		101.5	73.1 - 127.2		

Lab Sample ID: 480-35131-4 MS — **Client Sample ID: NFR-22 (0-6)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110067 — **Prep Batch: 109716**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead	110		42.9	151.5		mg/Kg	☼	98	75 - 125		

Lab Sample ID: 480-35131-4 MSD — **Client Sample ID: NFR-22 (0-6)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110067 — **Prep Batch: 109716**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	110		42.8	143.4		mg/Kg	☼	79	75 - 125	5	20

GC/MS Semi VOA

Prep Batch: 109847

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35131-9	NFR-23 (1-2)	Total/NA	Solid	3550B	
480-35131-18	NFR-26 (1-5)	Total/NA	Solid	3550B	
LCS 480-109847/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 480-109847/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 109909

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35131-9	NFR-23 (1-2)	Total/NA	Solid	8270C	109847
480-35131-18	NFR-26 (1-5)	Total/NA	Solid	8270C	109847
LCS 480-109847/2-A	Lab Control Sample	Total/NA	Solid	8270C	109847
MB 480-109847/1-A	Method Blank	Total/NA	Solid	8270C	109847

Metals

Prep Batch: 109716

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35131-1	NFR-21 (0-6)	Total/NA	Solid	3050B	
480-35131-2	NFR-21 (6-12)	Total/NA	Solid	3050B	
480-35131-3	NFR-21 (1-2)	Total/NA	Solid	3050B	
480-35131-4	NFR-22 (0-6)	Total/NA	Solid	3050B	
480-35131-4 MS	NFR-22 (0-6)	Total/NA	Solid	3050B	
480-35131-4 MSD	NFR-22 (0-6)	Total/NA	Solid	3050B	
480-35131-5	NFR-22 (6-12)	Total/NA	Solid	3050B	
480-35131-6	NFR-22 (1-2)	Total/NA	Solid	3050B	
480-35131-7	NFR-23 (0-6)	Total/NA	Solid	3050B	
480-35131-8	NFR-23 (6-12)	Total/NA	Solid	3050B	
480-35131-9	NFR-23 (1-2)	Total/NA	Solid	3050B	
480-35131-10	NFR-24 (0-6)	Total/NA	Solid	3050B	
480-35131-11	NFR-24 (6-12)	Total/NA	Solid	3050B	
480-35131-12	NFR-24 (1-2)	Total/NA	Solid	3050B	
480-35131-13	NFR-25 (0-6)	Total/NA	Solid	3050B	
480-35131-14	NFR-25 (6-12)	Total/NA	Solid	3050B	
480-35131-15	NFR-25 (1-2)	Total/NA	Solid	3050B	
480-35131-16	NFR-26 (0-6)	Total/NA	Solid	3050B	
480-35131-17	NFR-26 (6-12)	Total/NA	Solid	3050B	
480-35131-18	NFR-26 (1-5)	Total/NA	Solid	3050B	
480-35131-19	NFR-27 (0-6)	Total/NA	Solid	3050B	
480-35131-20	NFR-27 (6-12)	Total/NA	Solid	3050B	
LCSSRM 480-109716/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-109716/1-A	Method Blank	Total/NA	Solid	3050B	

Analysis Batch: 110067

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35131-1	NFR-21 (0-6)	Total/NA	Solid	6010B	109716
480-35131-2	NFR-21 (6-12)	Total/NA	Solid	6010B	109716
480-35131-3	NFR-21 (1-2)	Total/NA	Solid	6010B	109716
480-35131-4	NFR-22 (0-6)	Total/NA	Solid	6010B	109716
480-35131-4 MS	NFR-22 (0-6)	Total/NA	Solid	6010B	109716
480-35131-4 MSD	NFR-22 (0-6)	Total/NA	Solid	6010B	109716
480-35131-5	NFR-22 (6-12)	Total/NA	Solid	6010B	109716

Metals (Continued)

Analysis Batch: 110067 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35131-6	NFR-22 (1-2)	Total/NA	Solid	6010B	109716
480-35131-7	NFR-23 (0-6)	Total/NA	Solid	6010B	109716
480-35131-8	NFR-23 (6-12)	Total/NA	Solid	6010B	109716
480-35131-9	NFR-23 (1-2)	Total/NA	Solid	6010B	109716
480-35131-10	NFR-24 (0-6)	Total/NA	Solid	6010B	109716
480-35131-11	NFR-24 (6-12)	Total/NA	Solid	6010B	109716
480-35131-12	NFR-24 (1-2)	Total/NA	Solid	6010B	109716
480-35131-13	NFR-25 (0-6)	Total/NA	Solid	6010B	109716
480-35131-14	NFR-25 (6-12)	Total/NA	Solid	6010B	109716
480-35131-15	NFR-25 (1-2)	Total/NA	Solid	6010B	109716
480-35131-16	NFR-26 (0-6)	Total/NA	Solid	6010B	109716
480-35131-17	NFR-26 (6-12)	Total/NA	Solid	6010B	109716
480-35131-18	NFR-26 (1-5)	Total/NA	Solid	6010B	109716
480-35131-19	NFR-27 (0-6)	Total/NA	Solid	6010B	109716
480-35131-20	NFR-27 (6-12)	Total/NA	Solid	6010B	109716
LCSSRM 480-109716/2-A	Lab Control Sample	Total/NA	Solid	6010B	109716
MB 480-109716/1-A	Method Blank	Total/NA	Solid	6010B	109716

General Chemistry

Analysis Batch: 109706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35131-1	NFR-21 (0-6)	Total/NA	Solid	Moisture	
480-35131-2	NFR-21 (6-12)	Total/NA	Solid	Moisture	
480-35131-3	NFR-21 (1-2)	Total/NA	Solid	Moisture	
480-35131-4	NFR-22 (0-6)	Total/NA	Solid	Moisture	
480-35131-4 MS	NFR-22 (0-6)	Total/NA	Solid	Moisture	
480-35131-4 MSD	NFR-22 (0-6)	Total/NA	Solid	Moisture	
480-35131-5	NFR-22 (6-12)	Total/NA	Solid	Moisture	
480-35131-6	NFR-22 (1-2)	Total/NA	Solid	Moisture	
480-35131-7	NFR-23 (0-6)	Total/NA	Solid	Moisture	
480-35131-8	NFR-23 (6-12)	Total/NA	Solid	Moisture	
480-35131-9	NFR-23 (1-2)	Total/NA	Solid	Moisture	
480-35131-10	NFR-24 (0-6)	Total/NA	Solid	Moisture	
480-35131-11	NFR-24 (6-12)	Total/NA	Solid	Moisture	
480-35131-12	NFR-24 (1-2)	Total/NA	Solid	Moisture	
480-35131-13	NFR-25 (0-6)	Total/NA	Solid	Moisture	
480-35131-14	NFR-25 (6-12)	Total/NA	Solid	Moisture	
480-35131-15	NFR-25 (1-2)	Total/NA	Solid	Moisture	
480-35131-16	NFR-26 (0-6)	Total/NA	Solid	Moisture	
480-35131-17	NFR-26 (6-12)	Total/NA	Solid	Moisture	
480-35131-18	NFR-26 (1-5)	Total/NA	Solid	Moisture	
480-35131-19	NFR-27 (0-6)	Total/NA	Solid	Moisture	
480-35131-20	NFR-27 (6-12)	Total/NA	Solid	Moisture	

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-21 (0-6)

Lab Sample ID: 480-35131-1
Date Collected: 03/25/13 15:00
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:10	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-21 (6-12)

Lab Sample ID: 480-35131-2
Date Collected: 03/25/13 15:05
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:12	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-21 (1-2)

Lab Sample ID: 480-35131-3
Date Collected: 03/25/13 15:10
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:15	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-22 (0-6)

Lab Sample ID: 480-35131-4
Date Collected: 03/25/13 15:20
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 91.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:17	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-22 (6-12)

Lab Sample ID: 480-35131-5
Date Collected: 03/25/13 15:25
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:33	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-22 (1-2)

Lab Sample ID: 480-35131-6
Date Collected: 03/25/13 15:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 89.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:35	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-23 (0-6)

Lab Sample ID: 480-35131-7
Date Collected: 03/25/13 15:35
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 92.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:38	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-23 (6-12)

Lab Sample ID: 480-35131-8
Date Collected: 03/25/13 15:40
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:40	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-23 (1-2)

Lab Sample ID: 480-35131-9
Date Collected: 03/25/13 15:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 92.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			109847	03/29/13 06:49	DE	TAL BUF
Total/NA	Analysis	8270C		1	109909	03/29/13 19:33	HTL	TAL BUF
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:42	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-24 (0-6)

Lab Sample ID: 480-35131-10
Date Collected: 03/25/13 15:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 91.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:44	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-24 (6-12)

Lab Sample ID: 480-35131-11
Date Collected: 03/25/13 15:55
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:47	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-24 (1-2)

Lab Sample ID: 480-35131-12
Date Collected: 03/25/13 16:00
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 85.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:49	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-25 (0-6)

Lab Sample ID: 480-35131-13
Date Collected: 03/25/13 16:05
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 91.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:51	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-25 (6-12)

Lab Sample ID: 480-35131-14
Date Collected: 03/25/13 16:10
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 82.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 15:54	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-25 (1-2)

Lab Sample ID: 480-35131-15
Date Collected: 03/25/13 16:15
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 16:01	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Client Sample ID: NFR-26 (0-6)

Lab Sample ID: 480-35131-16
Date Collected: 03/26/13 08:20
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 16:03	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-26 (6-12)

Lab Sample ID: 480-35131-17
Date Collected: 03/26/13 08:25
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 16:05	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-26 (1-5)

Lab Sample ID: 480-35131-18
Date Collected: 03/26/13 08:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3550B			109847	03/29/13 06:49	DE	TAL BUF
Total/NA	Analysis	8270C		5	109909	03/29/13 19:58	HTL	TAL BUF
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 16:08	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-27 (0-6)

Lab Sample ID: 480-35131-19
Date Collected: 03/26/13 08:40
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 16:10	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-27 (6-12)

Lab Sample ID: 480-35131-20
Date Collected: 03/26/13 08:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109716	03/28/13 15:00	JM	TAL BUF
Total/NA	Analysis	6010B		1	110067	03/29/13 16:12	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-13
Georgia	State Program	4	N/A	03-31-13 *
Georgia	State Program	4	956	06-30-13
Georgia	State Program	4	956	06-30-13
Illinois	NELAP	5	200003	09-30-13
Iowa	State Program	7	374	03-01-13 *
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-13 *
Louisiana	NELAP	6	02031	06-30-13
Maine	State Program	1	NY00044	12-04-13
Maryland	State Program	3	294	03-31-13 *
Massachusetts	State Program	1	M-NY044	06-30-13
Michigan	State Program	5	9937	04-01-13 *
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-13
New Hampshire	NELAP	1	2337	11-17-13
New Jersey	NELAP	2	NY455	06-30-13
New York	NELAP	2	10026	03-31-13 *
North Dakota	State Program	8	R-176	03-31-13 *
Oklahoma	State Program	6	9421	08-31-13
Oregon	NELAP	10	NY200003	06-09-13
Pennsylvania	NELAP	3	68-00281	07-31-13
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-13 *
Texas	NELAP	6	T104704412-11-2	07-31-13
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-13
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-13

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
6010B	Metals (ICP)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

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 BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35131-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-35131-1	NFR-21 (0-6)	Solid	03/25/13 15:00	03/28/13 01:30
480-35131-2	NFR-21 (6-12)	Solid	03/25/13 15:05	03/28/13 01:30
480-35131-3	NFR-21 (1-2)	Solid	03/25/13 15:10	03/28/13 01:30
480-35131-4	NFR-22 (0-6)	Solid	03/25/13 15:20	03/28/13 01:30
480-35131-5	NFR-22 (6-12)	Solid	03/25/13 15:25	03/28/13 01:30
480-35131-6	NFR-22 (1-2)	Solid	03/25/13 15:30	03/28/13 01:30
480-35131-7	NFR-23 (0-6)	Solid	03/25/13 15:35	03/28/13 01:30
480-35131-8	NFR-23 (6-12)	Solid	03/25/13 15:40	03/28/13 01:30
480-35131-9	NFR-23 (1-2)	Solid	03/25/13 15:45	03/28/13 01:30
480-35131-10	NFR-24 (0-6)	Solid	03/25/13 15:50	03/28/13 01:30
480-35131-11	NFR-24 (6-12)	Solid	03/25/13 15:55	03/28/13 01:30
480-35131-12	NFR-24 (1-2)	Solid	03/25/13 16:00	03/28/13 01:30
480-35131-13	NFR-25 (0-6)	Solid	03/25/13 16:05	03/28/13 01:30
480-35131-14	NFR-25 (6-12)	Solid	03/25/13 16:10	03/28/13 01:30
480-35131-15	NFR-25 (1-2)	Solid	03/25/13 16:15	03/28/13 01:30
480-35131-16	NFR-26 (0-6)	Solid	03/26/13 08:20	03/28/13 01:30
480-35131-17	NFR-26 (6-12)	Solid	03/26/13 08:25	03/28/13 01:30
480-35131-18	NFR-26 (1-5)	Solid	03/26/13 08:30	03/28/13 01:30
480-35131-19	NFR-27 (0-6)	Solid	03/26/13 08:40	03/28/13 01:30
480-35131-20	NFR-27 (6-12)	Solid	03/26/13 08:45	03/28/13 01:30

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM: Hoffman, Sally	Carrier Tracking No(s)	COC No: 480-34278-8744.7
Client Contact: Mr. Rory Woodmansee	Phone	E-Mail: sally.hoffman@testamericainc.com		Page: Page 7 of 13
Company: C&S Engineers, Inc.				Job #
Address: 499 Col Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not required			
Email: rwoodmansee@cscos.com	WO #			
Project Name: Former Arthur Kill Correctional Facility	Project #: 48006338			
Site	SSOW#			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	6010B - Lead	8270C - TCL SVOA - OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:			N	N		
NFR-21 (0-6)	3/25/13	1500		Solid		X			
NFR-21 (6-12)		1505		Solid		X			
NFR-21 (1-2)		1510		Solid		X			
NFR-22 (0-6)		1520		Solid		X			
NFR-22 (0-6) MS		1520		Solid		X			
NFR-22 (0-6) MSD		1520		Solid		X			
NFR-22 (6-12)		1525		Solid		X			
NFR-22 (1-2)		1530		Solid		X			
NFR-23 (0-6)		1535		Solid		X			
NFR-23 (6-12)		1540		Solid		X			
NFR-23 (1-2)		1545		Solid		X	X		

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	3/27/13 1115	C&S	[signature]	3-27-13, 11 15	Syr
Relinquished by: RE	3-27-13, 1900	Sy	Received by: [signature]	3/28/13 0130	TA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM: Hoffman, Sally	Carrier Tracking No(s)	COC No: 480-34278-8744.8
Client Contact: Mr. Rory Woodmansee	Phone	E-Mail: sally.hoffman@testamericainc.com		Page: Page 8 of 13
Company: C&S Engineers, Inc				Job #
Address: 499 Col Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not required			
Email: rwoodmansee@cscos.com	WO #			
Project Name: Former Arthur Kill Correctional Facility	Project #: 48006338			
Site	SSOW#			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	6010B - Lead	8270C - TCL SVOA - OLM04.2	Total Number of containers	Special Instructions/Note:
			Preservation Code:			N	N		
NFR-24 (0-6)	3/23/13	1550		Solid		X			
NFR-24 (6-12)		1555		Solid		X			
NFR-24 (1-2)		1600		Solid		X			
NFR-25 (0-6)		1605		Solid		X			
NFR-25 (6-12)		1610		Solid		X			
NFR-25 (1-2)		1615		Solid		X			
NFR-26 (0-6)	3/24/13	0820		Solid		X			
NFR-26 (6-12)		0825		Solid		X			
NFR-26 (1-5)		0830		Solid		X	X		
NFR-27 (0-6)		0840		Solid					
NFR-27 (6-12)		0845		Solid					

Possible Hazard Identification

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

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

☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	3/27/13 1115	C&S	[signature]	3-27-13, 11:15	Sya
RE	3-27-13 1900	Sy	[signature]	3/28/13 0130	
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No

Custody Seal No..

Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-35131-1

Login Number: 35131
List Number: 1
Creator: Janish, Carl

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is 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 sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	C+S
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-35133-1
Client Project/Site: Former Arthur Kill Correctional Facility

For:
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212

Attn: Mr. Rory Woodmansee

Authorized for release by:
4/4/2013 3:45:45 PM
Joe Giacomazza
Project Administrator
joe.giacomazza@testamericainc.com

Designee for

Sally Hoffman
Project Manager II
sally.hoffman@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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)

Job ID: 480-35133-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-35133-1

Receipt
The samples were received on 3/28/2013 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.8º C, 4.3º C and 4.4º C.

Metals
Method(s) 6010B: The Method Blank for batch 480-109906 contained total lead above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples NFR-27 (1-2) (480-35133-1), NFR-28 (0-6) (480-35133-2), NFR-28 (1-2) (480-35133-4), NFR-28 (6-12) (480-35133-3), NFR-29 (0-6) (480-35133-5), NFR-29 (1-2) (480-35133-7), NFR-29 (6-12) (480-35133-6), NFR-30 (0-6) (480-35133-8), NFR-31 (0-6) (480-35133-9), NFR-32 (0-6) (480-35133-10), TRAP (480-35133-11), WOOD 1 (480-35133-12), WOOD 2 (480-35133-13), WOOD 3 (480-35133-14) was not performed.

Method(s) 6010B: The Matrix Spike / Matrix Spike Duplicate (NFR-30 (0-6) (480-35133-8 MS), NFR-30 (0-6) (480-35133-8 MSD)) precision for batch 480-109906 was outside control limits for total lead. Non-homogeneity of the sample matrix is suspected. The associated Laboratory Control Sample met acceptance criteria, therefore, no corrective action was necessary.

Method(s) 6010B: The following sample was diluted to bring the concentration of target analyte total lead within the linear range: TRAP (480-35133-11). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Organic Prep
No analytical or quality issues were noted.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: NFR-27 (1-2) — Lab Sample ID: 480-35133-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	67.1	B	1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-28 (0-6) — Lab Sample ID: 480-35133-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	104	B	1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-28 (6-12) — Lab Sample ID: 480-35133-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	72.8	B	1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-28 (1-2) — Lab Sample ID: 480-35133-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	77.1	B	1.2	0.30	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-29 (0-6) — Lab Sample ID: 480-35133-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	99.5	B	1.1	0.25	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-29 (6-12) — Lab Sample ID: 480-35133-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	115	B	1.2	0.28	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-29 (1-2) — Lab Sample ID: 480-35133-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	82.2	B	1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-30 (0-6) — Lab Sample ID: 480-35133-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	1280	B	1.1	0.26	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: NFR-31 (0-6) — Lab Sample ID: 480-35133-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	70.5	B	1.1	0.27	mg/Kg	1	☼	6010B	Total/NA
Lead	4.6		0.0050	0.0030	mg/L	1		6010B	TCLP

Client Sample ID: NFR-32 (0-6) — Lab Sample ID: 480-35133-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	64.2	B	1.2	0.30	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: TRAP — Lab Sample ID: 480-35133-11

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: TRAP (Continued) — Lab Sample ID: 480-35133-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	113000	B	20.1	4.8	mg/Kg	20	☼	6010B	Total/NA
Lead	962		0.10	0.060	mg/L	20		6010B	TCLP

Client Sample ID: WOOD 1 — Lab Sample ID: 480-35133-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	870	B	1.6	0.39	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: WOOD 2 — Lab Sample ID: 480-35133-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	39.4	B	1.8	0.43	mg/Kg	1	☼	6010B	Total/NA

Client Sample ID: WOOD 3 — Lab Sample ID: 480-35133-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	904	B	1.2	0.29	mg/Kg	1	☼	6010B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: NFR-27 (1-2)
Date Collected: 03/26/13 08:50
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35133-1
Matrix: Solid
Percent Solids: 87.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	67.1	B	1.1	0.26	mg/Kg	☼	03/29/13 11:45	03/29/13 19:47	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: NFR-28 (0-6)
Date Collected: 03/26/13 08:55
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35133-2
Matrix: Solid
Percent Solids: 88.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	104	B	1.2	0.29	mg/Kg	☼	03/29/13 11:45	03/29/13 19:50	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: NFR-28 (6-12)
Date Collected: 03/26/13 09:00
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35133-3
Matrix: Solid
Percent Solids: 88.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	72.8	B	1.2	0.29	mg/Kg	☼	03/29/13 11:45	03/29/13 19:52	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: NFR-28 (1-2)
Date Collected: 03/26/13 09:05
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35133-4
Matrix: Solid
Percent Solids: 88.8

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	77.1	B	1.2	0.30	mg/Kg	☼	03/29/13 11:45	03/29/13 19:55	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: NFR-29 (0-6)
Date Collected: 03/26/13 09:15
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35133-5
Matrix: Solid
Percent Solids: 86.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	99.5	B	1.1	0.25	mg/Kg	☼	03/29/13 11:45	03/29/13 19:57	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: NFR-29 (6-12)
Date Collected: 03/26/13 09:20
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35133-6
Matrix: Solid
Percent Solids: 90.0

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	115	B	1.2	0.28	mg/Kg	☼	03/29/13 11:45	03/29/13 20:00	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: NFR-29 (1-2)
Date Collected: 03/26/13 09:25
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35133-7
Matrix: Solid
Percent Solids: 89.3

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	82.2	B	1.1	0.26	mg/Kg	☼	03/29/13 11:45	03/29/13 20:02	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: NFR-30 (0-6)
Date Collected: 03/26/13 09:30
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35133-8
Matrix: Solid
Percent Solids: 90.5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	1280	B	1.1	0.26	mg/Kg	☼	03/29/13 11:45	03/29/13 20:04	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: NFR-31 (0-6)

Lab Sample ID: 480-35133-9

Date Collected: 03/26/13 09:40
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	70.5	B	1.1	0.27	mg/Kg	☼	03/29/13 11:45	03/29/13 20:20	1

Method: 6010B - TCLP RCRA Metals - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	4.6		0.0050	0.0030	mg/L		03/29/13 10:10	03/29/13 22:19	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: NFR-32 (0-6)

Lab Sample ID: 480-35133-10

Date Collected: 03/26/13 09:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 83.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	64.2	B	1.2	0.30	mg/Kg	☼	03/29/13 11:45	03/29/13 20:23	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: TRAP

Lab Sample ID: 480-35133-11

Date Collected: 03/26/13 10:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 99.7

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	113000	B	20.1	4.8	mg/Kg	☼	03/29/13 11:45	04/01/13 09:51	20

Method: 6010B - TCLP RCRA Metals - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	962		0.10	0.060	mg/L		03/29/13 10:10	04/01/13 10:38	20

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: WOOD 1
Date Collected: 03/26/13 12:00
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35133-12
Matrix: Solid
Percent Solids: 64.1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	870	B	1.6	0.39	mg/Kg	☼	03/29/13 11:45	04/01/13 09:53	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: WOOD 2

Lab Sample ID: 480-35133-13

Date Collected: 03/26/13 12:15
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 51.4

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	39.4	B	1.8	0.43	mg/Kg	☼	03/29/13 11:45	03/29/13 20:30	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: WOOD 3
Date Collected: 03/26/13 12:30
Date Received: 03/28/13 01:30

Lab Sample ID: 480-35133-14
Matrix: Solid
Percent Solids: 86.9

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	904	B	1.2	0.29	mg/Kg	☼	03/29/13 11:45	03/29/13 20:32	1

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 480-109906/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110088 — **Prep Batch: 109906**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.283	J	1.1	0.26	mg/Kg		03/29/13 11:45	03/29/13 19:38	1

Lab Sample ID: LCSSRM 480-109906/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110088 — **Prep Batch: 109906**

Analyte	Spike Added	LCSSRM Result	LCSSRM Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	136	128.4		mg/Kg		94.6	73.1 - 127.2

Lab Sample ID: 480-35133-8 MS — **Client Sample ID: NFR-30 (0-6)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110088 — **Prep Batch: 109906**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1280	B	45.3	300.7	4	mg/Kg	☼	-2158	75 - 125

Lab Sample ID: 480-35133-8 MSD — **Client Sample ID: NFR-30 (0-6)**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110088 — **Prep Batch: 109906**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Lead	1280	B	41.8	561.1	4 F	mg/Kg	☼	-1714	75 - 125	60	20

Method: 6010B - TCLP RCRA Metals

Lab Sample ID: MB 480-109915/2-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110072 — **Prep Batch: 109915**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050	0.0030	mg/L		03/29/13 10:10	03/29/13 21:59	1

Lab Sample ID: LCS 480-109915/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 110072 — **Prep Batch: 109915**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	0.983		mg/L		98	80 - 120

Lab Sample ID: LB 480-109728/1-E LB — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 110072 — **Prep Batch: 109915**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050	0.0030	mg/L		03/29/13 10:10	03/29/13 21:57	1

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Metals

Leach Batch: 109728

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35133-9	NFR-31 (0-6)	TCLP	Solid	1311	
480-35133-11	TRAP	TCLP	Solid	1311	
LB 480-109728/1-E LB	Method Blank	TCLP	Solid	1311	

Prep Batch: 109906

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35133-1	NFR-27 (1-2)	Total/NA	Solid	3050B	
480-35133-2	NFR-28 (0-6)	Total/NA	Solid	3050B	
480-35133-3	NFR-28 (6-12)	Total/NA	Solid	3050B	
480-35133-4	NFR-28 (1-2)	Total/NA	Solid	3050B	
480-35133-5	NFR-29 (0-6)	Total/NA	Solid	3050B	
480-35133-6	NFR-29 (6-12)	Total/NA	Solid	3050B	
480-35133-7	NFR-29 (1-2)	Total/NA	Solid	3050B	
480-35133-8	NFR-30 (0-6)	Total/NA	Solid	3050B	
480-35133-8 MS	NFR-30 (0-6)	Total/NA	Solid	3050B	
480-35133-8 MSD	NFR-30 (0-6)	Total/NA	Solid	3050B	
480-35133-9	NFR-31 (0-6)	Total/NA	Solid	3050B	
480-35133-10	NFR-32 (0-6)	Total/NA	Solid	3050B	
480-35133-11	TRAP	Total/NA	Solid	3050B	
480-35133-12	WOOD 1	Total/NA	Solid	3050B	
480-35133-13	WOOD 2	Total/NA	Solid	3050B	
480-35133-14	WOOD 3	Total/NA	Solid	3050B	
LCSSRM 480-109906/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 480-109906/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 109915

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35133-9	NFR-31 (0-6)	TCLP	Solid	3010A	109728
480-35133-11	TRAP	TCLP	Solid	3010A	109728
LB 480-109728/1-E LB	Method Blank	TCLP	Solid	3010A	109728
LCS 480-109915/3-A	Lab Control Sample	Total/NA	Solid	3010A	
MB 480-109915/2-A	Method Blank	Total/NA	Solid	3010A	

Analysis Batch: 110072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35133-9	NFR-31 (0-6)	TCLP	Solid	6010B	109915
LB 480-109728/1-E LB	Method Blank	TCLP	Solid	6010B	109915
LCS 480-109915/3-A	Lab Control Sample	Total/NA	Solid	6010B	109915
MB 480-109915/2-A	Method Blank	Total/NA	Solid	6010B	109915

Analysis Batch: 110088

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35133-1	NFR-27 (1-2)	Total/NA	Solid	6010B	109906
480-35133-2	NFR-28 (0-6)	Total/NA	Solid	6010B	109906
480-35133-3	NFR-28 (6-12)	Total/NA	Solid	6010B	109906
480-35133-4	NFR-28 (1-2)	Total/NA	Solid	6010B	109906
480-35133-5	NFR-29 (0-6)	Total/NA	Solid	6010B	109906
480-35133-6	NFR-29 (6-12)	Total/NA	Solid	6010B	109906
480-35133-7	NFR-29 (1-2)	Total/NA	Solid	6010B	109906
480-35133-8	NFR-30 (0-6)	Total/NA	Solid	6010B	109906
480-35133-8 MS	NFR-30 (0-6)	Total/NA	Solid	6010B	109906

Metals (Continued)

Analysis Batch: 110088 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35133-8 MSD	NFR-30 (0-6)	Total/NA	Solid	6010B	109906
480-35133-9	NFR-31 (0-6)	Total/NA	Solid	6010B	109906
480-35133-10	NFR-32 (0-6)	Total/NA	Solid	6010B	109906
480-35133-13	WOOD 2	Total/NA	Solid	6010B	109906
480-35133-14	WOOD 3	Total/NA	Solid	6010B	109906
LCSSRM 480-109906/2-A	Lab Control Sample	Total/NA	Solid	6010B	109906
MB 480-109906/1-A	Method Blank	Total/NA	Solid	6010B	109906

Analysis Batch: 110236

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35133-11	TRAP	Total/NA	Solid	6010B	109906
480-35133-12	WOOD 1	Total/NA	Solid	6010B	109906

Analysis Batch: 110241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35133-11	TRAP	TCLP	Solid	6010B	109915

General Chemistry

Analysis Batch: 109706

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35133-1	NFR-27 (1-2)	Total/NA	Solid	Moisture	
480-35133-2	NFR-28 (0-6)	Total/NA	Solid	Moisture	
480-35133-3	NFR-28 (6-12)	Total/NA	Solid	Moisture	
480-35133-4	NFR-28 (1-2)	Total/NA	Solid	Moisture	
480-35133-5	NFR-29 (0-6)	Total/NA	Solid	Moisture	
480-35133-6	NFR-29 (6-12)	Total/NA	Solid	Moisture	
480-35133-7	NFR-29 (1-2)	Total/NA	Solid	Moisture	
480-35133-8	NFR-30 (0-6)	Total/NA	Solid	Moisture	
480-35133-8 MS	NFR-30 (0-6)	Total/NA	Solid	Moisture	
480-35133-8 MSD	NFR-30 (0-6)	Total/NA	Solid	Moisture	
480-35133-9	NFR-31 (0-6)	Total/NA	Solid	Moisture	
480-35133-10	NFR-32 (0-6)	Total/NA	Solid	Moisture	
480-35133-11	TRAP	Total/NA	Solid	Moisture	
480-35133-12	WOOD 1	Total/NA	Solid	Moisture	
480-35133-13	WOOD 2	Total/NA	Solid	Moisture	
480-35133-14	WOOD 3	Total/NA	Solid	Moisture	

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: NFR-27 (1-2)

Lab Sample ID: 480-35133-1
Date Collected: 03/26/13 08:50
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 87.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	110088	03/29/13 19:47	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-28 (0-6)

Lab Sample ID: 480-35133-2
Date Collected: 03/26/13 08:55
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	110088	03/29/13 19:50	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-28 (6-12)

Lab Sample ID: 480-35133-3
Date Collected: 03/26/13 09:00
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	110088	03/29/13 19:52	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-28 (1-2)

Lab Sample ID: 480-35133-4
Date Collected: 03/26/13 09:05
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 88.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	110088	03/29/13 19:55	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-29 (0-6)

Lab Sample ID: 480-35133-5
Date Collected: 03/26/13 09:15
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 86.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	110088	03/29/13 19:57	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: NFR-29 (6-12)

Lab Sample ID: 480-35133-6
Date Collected: 03/26/13 09:20
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	110088	03/29/13 20:00	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-29 (1-2)

Lab Sample ID: 480-35133-7
Date Collected: 03/26/13 09:25
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	110088	03/29/13 20:02	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-30 (0-6)

Lab Sample ID: 480-35133-8
Date Collected: 03/26/13 09:30
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 90.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	110088	03/29/13 20:04	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-31 (0-6)

Lab Sample ID: 480-35133-9
Date Collected: 03/26/13 09:40
Matrix: Solid
Date Received: 03/28/13 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			109728	03/28/13 13:18	KB	TAL BUF
TCLP	Prep	3010A			109915	03/29/13 10:10	JM	TAL BUF
TCLP	Analysis	6010B		1	110072	03/29/13 22:19	LH	TAL BUF
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	110088	03/29/13 20:20	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: NFR-32 (0-6)

Lab Sample ID: 480-35133-10
Date Collected: 03/26/13 09:45
Matrix: Solid
Date Received: 03/28/13 01:30
Percent Solids: 83.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	110088	03/29/13 20:23	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Client Sample ID: TRAP — Lab Sample ID: 480-35133-11

Date Collected: 03/26/13 10:30 — **Matrix: Solid**
Date Received: 03/28/13 01:30 — **Percent Solids: 99.7**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		20	110236	04/01/13 09:51	LH	TAL BUF
TCLP	Leach	1311			109728	03/28/13 13:18	KB	TAL BUF
TCLP	Prep	3010A			109915	03/29/13 10:10	JM	TAL BUF
TCLP	Analysis	6010B		20	110241	04/01/13 10:38	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: WOOD 1 — Lab Sample ID: 480-35133-12

Date Collected: 03/26/13 12:00 — **Matrix: Solid**
Date Received: 03/28/13 01:30 — **Percent Solids: 64.1**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	110236	04/01/13 09:53	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: WOOD 2 — Lab Sample ID: 480-35133-13

Date Collected: 03/26/13 12:15 — **Matrix: Solid**
Date Received: 03/28/13 01:30 — **Percent Solids: 51.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	110088	03/29/13 20:30	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Client Sample ID: WOOD 3 — Lab Sample ID: 480-35133-14

Date Collected: 03/26/13 12:30 — **Matrix: Solid**
Date Received: 03/28/13 01:30 — **Percent Solids: 86.9**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			109906	03/29/13 11:45	JM	TAL BUF
Total/NA	Analysis	6010B		1	110088	03/29/13 20:32	LH	TAL BUF
Total/NA	Analysis	Moisture		1	109706	03/28/13 11:01		TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-13
Georgia	State Program	4	N/A	03-31-13 *
Georgia	State Program	4	956	06-30-13
Georgia	State Program	4	956	06-30-13
Illinois	NELAP	5	200003	09-30-13
Iowa	State Program	7	374	03-01-13 *
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-13 *
Louisiana	NELAP	6	02031	06-30-13
Maine	State Program	1	NY00044	12-04-13
Maryland	State Program	3	294	03-31-13 *
Massachusetts	State Program	1	M-NY044	06-30-13
Michigan	State Program	5	9937	04-01-13 *
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-13
New Hampshire	NELAP	1	2337	11-17-13
New Jersey	NELAP	2	NY455	06-30-13
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-13 *
Oklahoma	State Program	6	9421	08-31-13
Oregon	NELAP	10	NY200003	06-09-13
Pennsylvania	NELAP	3	68-00281	07-31-13
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-13 *
Texas	NELAP	6	T104704412-11-2	07-31-13
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-13
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-13

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL BUF
6010B	TCLP RCRA Metals	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

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 BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-35133-1	NFR-27 (1-2)	Solid	03/26/13 08:50	03/28/13 01:30
480-35133-2	NFR-28 (0-6)	Solid	03/26/13 08:55	03/28/13 01:30
480-35133-3	NFR-28 (6-12)	Solid	03/26/13 09:00	03/28/13 01:30
480-35133-4	NFR-28 (1-2)	Solid	03/26/13 09:05	03/28/13 01:30
480-35133-5	NFR-29 (0-6)	Solid	03/26/13 09:15	03/28/13 01:30
480-35133-6	NFR-29 (6-12)	Solid	03/26/13 09:20	03/28/13 01:30
480-35133-7	NFR-29 (1-2)	Solid	03/26/13 09:25	03/28/13 01:30
480-35133-8	NFR-30 (0-6)	Solid	03/26/13 09:30	03/28/13 01:30
480-35133-9	NFR-31 (0-6)	Solid	03/26/13 09:40	03/28/13 01:30
480-35133-10	NFR-32 (0-6)	Solid	03/26/13 09:45	03/28/13 01:30
480-35133-11	TRAP	Solid	03/26/13 10:30	03/28/13 01:30
480-35133-12	WOOD 1	Solid	03/26/13 12:00	03/28/13 01:30
480-35133-13	WOOD 2	Solid	03/26/13 12:15	03/28/13 01:30
480-35133-14	WOOD 3	Solid	03/26/13 12:30	03/28/13 01:30

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM: Hoffman, Sally	Carrier Tracking No(s)	COC No 480-34278-8744.9
Client Contact: Mr. Rory Woodmansee	Phone:	E-Mail: sally.hoffman@testamericainc.com		Page Page 9 of 13
Company: C&S Engineers, Inc.				Job #
Address: 499 Col. Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not required			
Email: rwoodmansee@cscos.com	WO #:			
Project Name: Former Arthur Kill Correctional Facility	Project #: 48006338			
Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - Lead	8270C - TCL SVOA - OLM04.2	TCLP LEAD	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N			
NFR-27 (1-2)	3/26/13	0850		Solid			X				
NFR-28 (0-6)		0855		Solid			X				
NFR-28 (6-12)		0900		Solid			X				
NFR-28 (1-2)		0905		Solid			X				
NFR-29 (0-6)		0915		Solid			X				
NFR-29 (6-12)		0920		Solid			X				
NFR-29 (1-2)		0925		Solid			X				
NFR-30 (0-6)		0930		Solid			X				
NFR-30 (0-6) MS		0930		Solid			X				
NFR-30 (0-6) MSD		0930		Solid			X				
NFR-31 (0-6)	✓	0940		Solid			X		X		

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	3/27/13 1115	C&S	[signature]	3-27-13, 11:15	Sya
RE	3-27-13 1800	Sya	[signature]	3/28/13 0130	TA

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks: 3.8 4.3 4.4 #1

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM: Hoffman, Sally	Carrier Tracking No(s)	COC No: 480-34278-8744.10
Client Contact: Mr Rory Woodmansee	Phone	E-Mail: sally.hoffman@testamericainc.com		Page: Page 10 of 13
Company: C&S Engineers, Inc.				Job #
Address: 499 Col Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not required			
Email: rwoodmansee@cscos com	WO #			
Project Name: Former Arthur Kill Correctional Facility	Project #: 48006338			
Site	SSOW#			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - Lead	8270C - TCL SVOA - OLM04.2	TCLP LEAD									Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N											
NFR-32 (0-6)	3/26/13	0945	G	Solid			X												
TRAP		1030		Solid			X		X										
WOOD 1		1200		Solid			X												two containers provided for wood samples - please hold additional sample for potential TCLP LEAD analysis following reporting of TOTAL LEAD
WOOD 2		1215		Solid			X												
WOOD 3		1230		Solid			X												
				Solid															
				Solid															
				Solid															
				Solid															
				Solid															
				Solid															

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: CAT B ASP05 deliverable

Empty Kit Relinquished by	Date:	Time:	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
[signature]	3/27/13 1115	C&S	[signature]	3-27-13, 1115	Syr
[signature]	3-27-13, 1900	Sy	[signature]	3/28/13 0130	TA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-35133-1

Login Number: 35133
List Number: 1
Creator: Janish, Carl

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is 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 sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	C+S
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Buffalo
10 Hazelwood Drive
Amherst, NY 14228-2298
Tel: (716)691-2600

TestAmerica Job ID: 480-35133-2
Client Project/Site: Former Arthur Kill Correctional Facility

For:
C&S Engineers, Inc.
499 Col. Eileen Collins Blvd
Syracuse, New York 13212

Attn: Mr. Rory Woodmansee

Authorized for release by:
4/11/2013 10:50:28 AM
Joe Giacomazza
Project Administrator
joe.giacomazza@testamericainc.com

Designee for

Sally Hoffman
Project Manager II
sally.hoffman@testamericainc.com

LINKS

Review your project results through TotalAccess

Have a Question? Ask The Expert

Visit us at: www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-2

Qualifiers

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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)

Job ID: 480-35133-2

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative
480-35133-2

Receipt
The samples were received on 3/28/2013 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.8º C, 4.3º C and 4.4º C.

Metals
Method(s) 6010B: The TCLP Extractor Blank, LB 480-111501, for batch 480-111673 contained lead above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples WOOD 1 (480-35133-12), WOOD 2 (480-35133-13), WOOD 3 (480-35133-14) was not performed.

No other analytical or quality issues were noted.

Organic Prep
Method(s) 1311: Insufficient sample was provided to perform the leaching procedure with the required 100g for the following samples: WOOD 1 (480-35133-12), WOOD 2 (480-35133-13), WOOD 3 (480-35133-14). The volume of leaching fluid was adjusted proportionally to maintain a 20:1 ratio of leaching fluid to weight of sample. Reporting limits (RLs) are not affected.

No other analytical or quality issues were noted.

Detection Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-2

Client Sample ID: WOOD 1 — Lab Sample ID: 480-35133-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	3.3	B	0.0050	0.0030	mg/L	1		6010B	TCLP

Client Sample ID: WOOD 2 — Lab Sample ID: 480-35133-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.042	B	0.0050	0.0030	mg/L	1		6010B	TCLP

Client Sample ID: WOOD 3 — Lab Sample ID: 480-35133-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Lead	53.3	B	0.0050	0.0030	mg/L	1		6010B	TCLP

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-2

Client Sample ID: WOOD 1

Lab Sample ID: 480-35133-12

Date Collected: 03/26/13 12:00
Matrix: Solid
Date Received: 03/28/13 01:30

Method: 6010B - TCLP RCRA Metals - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	3.3	B	0.0050	0.0030	mg/L		04/09/13 09:50	04/09/13 17:15	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-2

Client Sample ID: WOOD 2

Lab Sample ID: 480-35133-13

Date Collected: 03/26/13 12:15

Matrix: Solid

Date Received: 03/28/13 01:30

Method: 6010B - TCLP RCRA Metals - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.042	B	0.0050	0.0030	mg/L		04/09/13 09:50	04/09/13 17:17	1

Client Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-2

Client Sample ID: WOOD 3

Lab Sample ID: 480-35133-14

Date Collected: 03/26/13 12:30

Matrix: Solid

Date Received: 03/28/13 01:30

Method: 6010B - TCLP RCRA Metals - TCLP

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	53.3	B	0.0050	0.0030	mg/L		04/09/13 09:50	04/09/13 17:20	1

QC Sample Results

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-2

Method: 6010B - TCLP RCRA Metals

Lab Sample ID: MB 480-111673/2-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 111933 — **Prep Batch: 111673**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.0050	0.0030	mg/L		04/09/13 09:50	04/09/13 17:10	1

Lab Sample ID: LCS 480-111673/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 111933 — **Prep Batch: 111673**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	1.00	1.01		mg/L		101	80 - 120

Lab Sample ID: LB 480-111501/1-B LB — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: TCLP**
Analysis Batch: 111933 — **Prep Batch: 111673**

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.00381	J	0.0050	0.0030	mg/L		04/09/13 09:50	04/09/13 17:08	1

QC Association Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-2

Metals

Leach Batch: 111501

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35133-12	WOOD 1	TCLP	Solid	1311	
480-35133-13	WOOD 2	TCLP	Solid	1311	
480-35133-14	WOOD 3	TCLP	Solid	1311	
LB 480-111501/1-B LB	Method Blank	TCLP	Solid	1311	

Prep Batch: 111673

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35133-12	WOOD 1	TCLP	Solid	3010A	111501
480-35133-13	WOOD 2	TCLP	Solid	3010A	111501
480-35133-14	WOOD 3	TCLP	Solid	3010A	111501
LB 480-111501/1-B LB	Method Blank	TCLP	Solid	3010A	111501
LCS 480-111673/3-A	Lab Control Sample	Total/NA	Solid	3010A	
MB 480-111673/2-A	Method Blank	Total/NA	Solid	3010A	

Analysis Batch: 111933

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
480-35133-12	WOOD 1	TCLP	Solid	6010B	111673
480-35133-13	WOOD 2	TCLP	Solid	6010B	111673
480-35133-14	WOOD 3	TCLP	Solid	6010B	111673
LB 480-111501/1-B LB	Method Blank	TCLP	Solid	6010B	111673
LCS 480-111673/3-A	Lab Control Sample	Total/NA	Solid	6010B	111673
MB 480-111673/2-A	Method Blank	Total/NA	Solid	6010B	111673

Lab Chronicle

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-2

Client Sample ID: WOOD 1

Lab Sample ID: 480-35133-12
Date Collected: 03/26/13 12:00
Matrix: Solid
Date Received: 03/28/13 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			111501	04/08/13 11:02	MRB	TAL BUF
TCLP	Prep	3010A			111673	04/09/13 09:50	JM	TAL BUF
TCLP	Analysis	6010B		1	111933	04/09/13 17:15	AH	TAL BUF

Client Sample ID: WOOD 2

Lab Sample ID: 480-35133-13
Date Collected: 03/26/13 12:15
Matrix: Solid
Date Received: 03/28/13 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			111501	04/08/13 11:02	MRB	TAL BUF
TCLP	Prep	3010A			111673	04/09/13 09:50	JM	TAL BUF
TCLP	Analysis	6010B		1	111933	04/09/13 17:17	AH	TAL BUF

Client Sample ID: WOOD 3

Lab Sample ID: 480-35133-14
Date Collected: 03/26/13 12:30
Matrix: Solid
Date Received: 03/28/13 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
TCLP	Leach	1311			111501	04/08/13 11:02	MRB	TAL BUF
TCLP	Prep	3010A			111673	04/09/13 09:50	JM	TAL BUF
TCLP	Analysis	6010B		1	111933	04/09/13 17:20	AH	TAL BUF

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Certification Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-2

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Arkansas DEQ	State Program	6	88-0686	07-06-13
California	NELAP	9	1169CA	09-30-13
Connecticut	State Program	1	PH-0568	09-30-14
Florida	NELAP	4	E87672	06-30-13
Georgia	State Program	4	N/A	03-31-13 *
Georgia	State Program	4	956	06-30-13
Georgia	State Program	4	956	06-30-13
Illinois	NELAP	5	200003	09-30-13
Iowa	State Program	7	374	03-01-13 *
Kansas	NELAP	7	E-10187	01-31-14
Kentucky	State Program	4	90029	12-31-13
Kentucky (UST)	State Program	4	30	04-01-14
Louisiana	NELAP	6	02031	06-30-13
Maine	State Program	1	NY00044	12-04-13
Maryland	State Program	3	294	03-31-13 *
Massachusetts	State Program	1	M-NY044	06-30-13
Michigan	State Program	5	9937	04-01-13 *
Minnesota	NELAP	5	036-999-337	12-31-13
New Hampshire	NELAP	1	2973	09-11-13
New Hampshire	NELAP	1	2337	11-17-13
New Jersey	NELAP	2	NY455	06-30-13
New York	NELAP	2	10026	04-01-14
North Dakota	State Program	8	R-176	03-31-13 *
Oklahoma	State Program	6	9421	08-31-13
Oregon	NELAP	10	NY200003	06-09-13
Pennsylvania	NELAP	3	68-00281	07-31-13
Rhode Island	State Program	1	LAO00328	12-31-13
Tennessee	State Program	4	TN02970	04-01-14
Texas	NELAP	6	T104704412-11-2	07-31-13
USDA	Federal		P330-11-00386	11-22-14
Virginia	NELAP	3	460185	09-14-13
Washington	State Program	10	C784	02-10-14
West Virginia DEP	State Program	3	252	09-30-13
Wisconsin	State Program	5	998310390	08-31-13

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-2

Method	Method Description	Protocol	Laboratory
6010B	TCLP RCRA Metals	SW846	TAL BUF

Protocol References:

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

Laboratory References:

TAL BUF = TestAmerica Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

Sample Summary

Client: C&S Engineers, Inc.
Project/Site: Former Arthur Kill Correctional Facility

TestAmerica Job ID: 480-35133-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-35133-12	WOOD 1	Solid	03/26/13 12:00	03/28/13 01:30
480-35133-13	WOOD 2	Solid	03/26/13 12:15	03/28/13 01:30
480-35133-14	WOOD 3	Solid	03/26/13 12:30	03/28/13 01:30

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM: Hoffman, Sally	Carrier Tracking No(s)	COC No 480-34278-8744.9
Client Contact: Mr. Rory Woodmansee	Phone:	E-Mail: sally.hoffman@testamericainc.com		Page Page 9 of 13
Company: C&S Engineers, Inc.				Job #
Address: 499 Col. Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not required			
Email: rwoodmansee@cscos.com	WO #:			
Project Name: Former Arthur Kill Correctional Facility	Project #: 48006338			
Site	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - Lead	8270C - TCL SVOA - OLM04.2	TCLP LEAD	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N			
NFR-27 (1-2)	3/26/13	0850		Solid			X				
NFR-28 (0-6)		0855		Solid			X				
NFR-28 (6-12)		0900		Solid			X				
NFR-28 (1-2)		0905		Solid			X				
NFR-29 (0-6)		0915		Solid			X				
NFR-29 (6-12)		0920		Solid			X				
NFR-29 (1-2)		0925		Solid			X				
NFR-30 (0-6)		0930		Solid			X				
NFR-30 (0-6) MS		0930		Solid			X				
NFR-30 (0-6) MSD		0930		Solid			X				
NFR-31 (0-6)	✓	0940		Solid			X		X		

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by	Date	Time	Method of Shipment

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Rory Woodmansee	3/27/13 1115	C&S	Reing Lin	3-27-13, 11:15	Sya
RE	3-27-13 1800	Sy	[illegible]	3/28/13 0130	TA

Custody Seals Intact: Δ Yes Δ No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.8 4.3 4.4 #1

Chain of Custody Record

TestAmerica

Client Information	Sampler	Lab PM: Hoffman, Sally	Carrier Tracking No(s)	COC No: 480-34278-8744.10
Client Contact: Mr Rory Woodmansee	Phone	E-Mail: sally.hoffman@testamericainc.com		Page: Page 10 of 13
Company: C&S Engineers, Inc.				Job #
Address: 499 Col Eileen Collins Blvd	Due Date Requested:			
City: Syracuse	TAT Requested (days):			
State, Zip: NY, 13212				
Phone: 315-455-2000(Tel) 315-455-9667(Fax)	PO #: Purchase Order not required			
Email: rwoodmansee@cscos com	WO #			
Project Name: Former Arthur Kill Correctional Facility	Project #: 48006338			
Site	SSOW#			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B - Lead	8270C - TCL SVOA - OLM04.2	TCLP LEAD	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N			
NFR-32 (0-6)	3/26/13	0945	G	Solid			X				
TRAP		1030		Solid			X		X		
WOOD 1		1200		Solid			X				two containers provided for wood samples - please hold additional sample for potential TCLP LEAD analysis following reporting of TOTAL LEAD
WOOD 2		1215		Solid			X				
WOOD 3		1230		Solid			X				
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							
				Solid							

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested I, II, III, IV, Other (specify)

Special Instructions/QC Requirements: CATB ASP05 deliverable

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Relinquished by	Date/Time	Company	Received by	Date/Time	Company
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[signature]	3-27-13, 1900	Sy	[signature]	3/28/13 0130	TA
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Login Sample Receipt Checklist

Client: C&S Engineers, Inc.

Job Number: 480-35133-2

Login Number: 35133
List Number: 1
Creator: Janish, Carl

List Source: TestAmerica Buffalo

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is 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 sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	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	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	C+S
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	N/A	