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April 30, 2009

Ian Beilby
New York State Department of Environmental Conservation
Division of Environmental Remediation
625 Broadway
Albany, New York 12233-7013

RE: Interim Remedial Measures Final Work Plan
Former Adirondack Steel Site,
Colonie, New York
Current Work Assignment Number: D004435-10
Site No.: 4-01-039

Dear Mr. Beilby:

Enclosed are five copies of this Interim Remedial Measures (IRM) Final Work Plan for the former Adirondack Steel site in Colonie, New York. This work plan was prepared by Ecology and Environment Engineering, P.C. (EEEPC) at the request of the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation (DER) on August 4, 2008 for IRM services at the Former Adirondack Steel site (Site No. 4-01-039), located at 191, 225, 227, and 229 Watervliet Shaker Road in Colonie, Albany County, New York.

The overall objectives of executing the work scope in the IRM work plan are to:

- Based on the previous remedial investigation results, excavate all polychlorinated biphenyl (PCB)-contaminated soil greater than or equal to 1 part per million (ppm) from the top foot of soil. Excavate all PCB-contaminated soil greater than or equal to 10 ppm from all depths; and

- Collect confirmation soil samples from each excavation (at least one bottom and one sidewall sample will be collected from each excavation).

1. Site Background

The site description and history remain as described in EEEPC's work plan of September 2005.

2. IRM Tasks

2.1 Work Plan Development

2.1.1 Scope of Work Development

EEEPC developed this work plan following a request from NYSDEC on August 4, 2008. Following NYSDEC's approval of this work plan, the work will be scheduled as soon as possible (pending subcontractor availability hired by NYSDEC and weather constraints).

2.1.2 Site-Specific Health and Safety Plan Preparation

A site-specific health and safety plan (HASP) pertaining to this IRM was prepared and is included as Attachment A of this work plan.

2.1.3 Quality Assurance Project Plan Preparation

EEEPC has a master Quality Assurance Program Plan (QAPP) approved by NYSDEC under previous site investigation projects under this contract. A project-specific QAPP was prepared and is included in Attachment B.

2.2 Field Investigation

The IRM will consist of excavating PCB-contaminated soil greater than or equal to 1 ppm from the top foot of soil and excavating PCB-contaminated soil greater than or equal to 10 ppm at all depths (see Figures 1 and 2). Disposal work will include removal and disposal of excavated soil (remedial activity-derived waste). Subcontracted laboratory analysis, waste disposal, and excavation subcontractors will be arranged by NYSDEC.

2.2.1 Mobilization

Once EEEPC receives a notice to proceed from NYSDEC, and after NYSDEC obtains the subcontractors, the EEEPC field team will travel to the site and commence the project. Project efforts will be conducted on business weekdays, not on holidays or weekends. The project is anticipated to take place in May 2009 and will take approximately 10 days to complete.

2.2.2 Excavation and Soil Sampling

Upon review of the remedial investigation soil sampling results, 20 soil samples had PCB concentrations greater than or equal to 1 ppm (soil to be removed from the top foot of soil) and 10 soil samples had PCB concentrations greater than or equal to 10 ppm (soil to be removed at all depths; see Figures 1 and 2). These contaminated soil sample locations will be excavated using a standard backhoe, or other equipment the contractor deems necessary, and will be operated by a subcontractor that will be hired by NYSDEC. Initial excavation will remove soil containing 50 ppm of PCBs and greater. Those areas will be located in the field by EEEPC staff using analytical and positional data obtained during the remedial investigation indicated on Figure 1 and Figure 2 of the IRM work plan. Where feasible, the material will be loaded directly into dump trucks or other transport vehicles provided by the contractor and transported off site. If necessary, the material will be stockpiled on plastic sheeting and covered until removal. Upon completing removal of 50 ppm and greater PCB-contaminated soil, confirmation samples will be collected for laboratory analysis on 24-hour turn around time for total TCL PCBs using EPA Method SW-8082 to document that all concentrations greater than 50 ppm have been removed. Upon review of the data, a determination will be made whether additional

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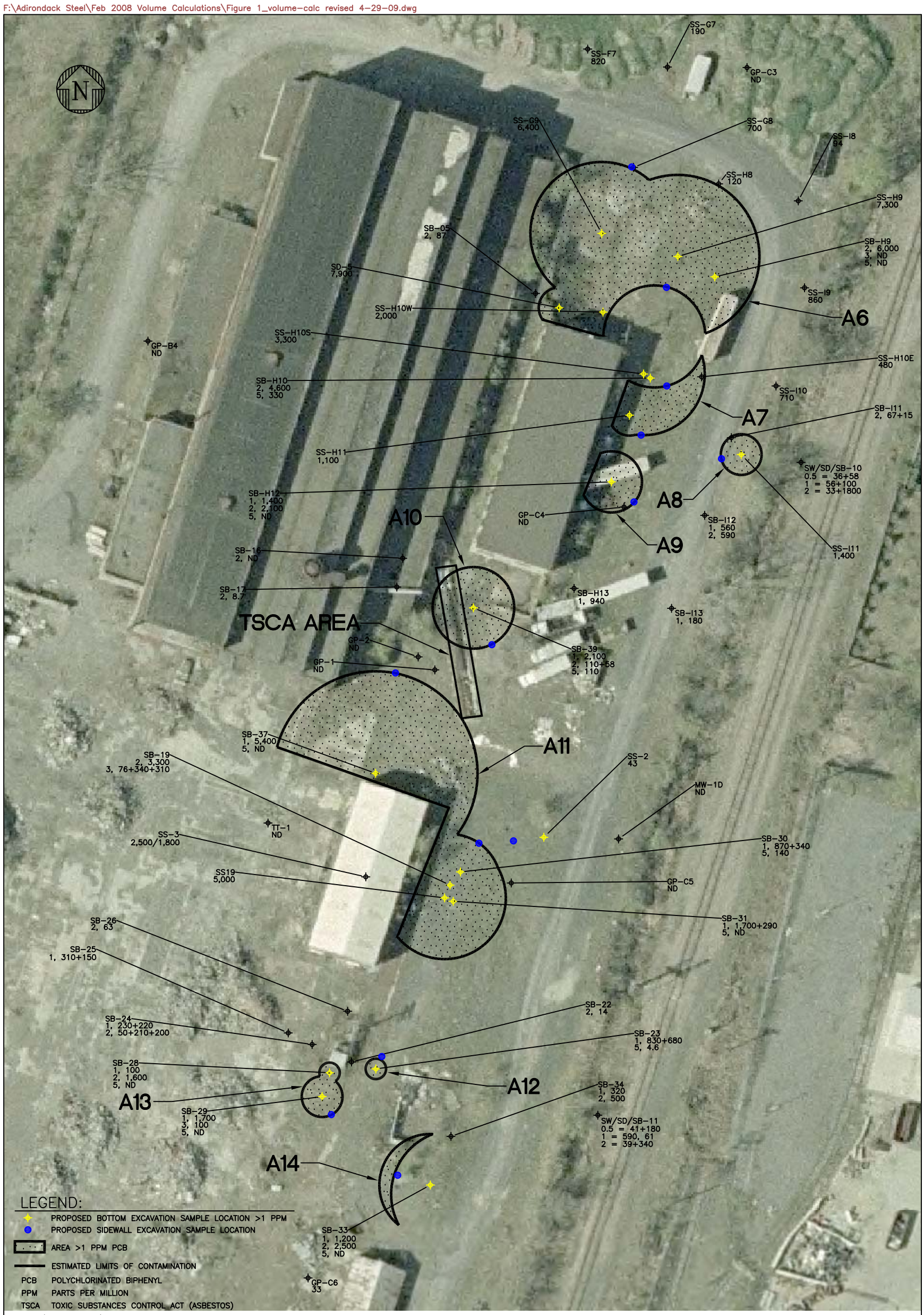

SOURCE (AERIAL PHOTO): NYS OFFICE OF CYBER SECURITY & CRITICAL INFRASTRUCTURE COORDINATION, 2004

NAME	PPM	SURFACE AREA (Square Feet)	VOLUME (Cubic Yards of Cut)	DEPTH of EXCAVATION
A6	>1 PPM	9974	740	2'
A7	>1 PPM	1347	100	2'
A8	>1 PPM	452	34	2'
A9	>1 PPM	913	68	2'
A10	>1 PPM	1810	67	1'
A11	>1 PPM	9705	358	1'
A12	>1 PPM	113	4	1'
A13	>1 PPM	544	40	2'
A14	>1 PPM	363	27	2'

NOTE: LIMITS ARE BASED ON ANALYTICAL DATA OR PHYSICAL CONSTRAINTS.

NOTE:
1. PCB CONTAMINATION DATA IN ug/Kg.

PCB CONTAMINATION DATA EXPLANATION

SB-24
2, 50+210+200
- AROCLOR 1260
- AROCLOR 1254
- AROCLOR 1248
- DEPTH IN FEET

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SCALE IN FEET
0 60 120 180

FIGURE 1 FORMER ADIRONDACK STEEL SITE
PCB Volumes >1 PPM
COLONIE, NEW YORK

F:\Adirondack Steel\Feb 2008 Volume Calculations\Figure 2_volume-calc revised 10-8-08.dwg

SOURCE (AERIAL PHOTO): NYS OFFICE OF CYBER SECURITY & CRITICAL INFRASTRUCTURE COORDINATION, 2004

NOTE:
1. PCB CONTAMINATION DATA IN ug/Kg.

NAME	PPM	SURFACE AREA (Square Feet)	VOLUME (Cubic Yards of Cut)	DEPTH of EXCAVATION
A1	>10 PPM	4122	774	5'
A2	>10 PPM	1426	55	1'
A3	>10 PPM	1018	113	3'
A4	>10 PPM	2525	187	2'
A5	>10 PPM	452	34	2'

NOTE: LIMITS ARE BASED ON ANALYTICAL DATA OR PHYSICAL CONSTRAINTS.

PCB CONTAMINATION DATA EXPLANATION

SB-24
2, 50+210+200
- AROCLOR 1260
- AROCLOR 1254
- AROCLOR 1248
- DEPTH IN FEET

ecology and environment

SCALE IN FEET

0 60 120 180

FIGURE 2 FORMER ADIRONDACK STEEL SITE
PCB Volumes >10 PPM
COLONIE, NEW YORK

contamination that exists above 50 ppm must be excavated and disposed of prior to excavating non-hazardous PCB contamination. The area will be re-marked and the contractor will excavate to the newly marked limits of excavation, as previously described, and confirmation samples will again be collected and analyzed. This process will continue until all contamination greater than 50 ppm has been removed. Decontamination of the equipment will be performed according to Section 2.2.6 of this work plan.

Once it has been determined that PCB concentrations greater than 50 ppm have been removed, soils containing 1 ppm and greater will be excavated from the marked areas based on data collected during the remedial investigation data. The above sample collection, evaluation, and subsequent soil removal will be reiterated as necessary until the confirmation samples indicate that PCB concentrations in the soils at the site are less than or equal to 1 ppm. Equipment used during the excavation will again be decontaminated prior to leaving the site. Where necessary, uncontaminated debris (e.g., large concrete slabs, tires) will be moved out of the excavation area and away from the work zone. The actual length, width, and depth of each excavation will be based on field observations and screening conducted by EEEPC using a photoionization detector (PID) and/or lab-analyzed confirmation samples.

If possible, based on disposal facility requirements, contaminated soil will be loaded directly into a hauling vehicle and taken off site to the disposal facility. Only when direct loading is not possible, soil will be temporarily placed adjacent to the excavation until the excavation is complete. Due to the limited depth of excavation, backfill will not be required, but the edges of the excavations should be graded to eliminate steep drops. The excavated soil will be stockpiled on site pending disposal. The backhoe bucket will be steam-cleaned on an appropriate pad in a location prescribed by EEEPC upon consultation with the contractor before and after each excavation. Continuous air monitoring will be performed throughout all subsurface investigation activities.

Confirmation bottom soil samples will be collected at a frequency of one sample per 625 square feet from the 30 contaminated soil sample locations previously sampled from the remedial investigation (see Figures 1 and 2). Additional bottom samples may be collected pending analytical results. For the purposes of creating a cost plan, it is assumed 10 additional bottom samples may be collected based on analytical results. The locations and estimated depths of the samples are included in Table 1. One confirmation sidewall soil sample (approximately 25) will also be collected from each of the excavations (see Figures 1 and 2). For the purposes of creating a cost plan, it is assumed that five additional sidewall samples may be collected based on analytical results. Each sample will be collected from the area containing the highest PID reading or based on visual and olfactory observations. If no PID readings are obtained, each sample will be collected based on visual and olfactory observations.

Excavation dimensions, along with a lithologic description, will be recorded in the field logbook by the site geologist or field team leader. Photographs will be taken of each excavation.

Table 1 Proposed Soil Sampling From Excavations
Former Adirondack Steel, Colonie, NY

Previous Location Sample ID	Prevous Sample Depth (feet bgs)	Estimated Excavation Depth (feet bgs)	Area from Figures 1 and 2	IRM Sample ID
Bottom excavation samples greater than or equal to 10 ppm - remove at all depths*				
SB-G9	2	2	A5	BOT-SBG9-depth of sample (e.g. 2')
SS-H10N	Surface	1	A6	BOT-SSH10N(1)-depth of sample
				BOT-SSH10N(2)-depth of sample
SS-H10	Surface	1	A4	BOT-SSH10(1)-depth of sample
				BOT-SSH10(2)-depth of sample
				BOT-SSH10(3)-depth of sample
				BOT-SSH10(4)-depth of sample
SS16	Surface	1	A3	BOT-SS16-depth of sample
SB-38	1 to 2	3 to 4	A3	BOT-SB38-depth of sample
SB-36	1	2	A2	BOT-SB36-depth of sample
SB-27	1	2	A2	BOT-SB27(1)-depth of sample
				BOT-SB27(2)-depth of sample
SB-32	2	3 or 4	A1	BOT-SB32(1)-depth of sample
				BOT-SB32(2)-depth of sample
SB-01	2 to 3	4	A1	BOT-SB01(1)-depth of sample
				BOT-SB01(2)-depth of sample
SB-35	2	3 to 4	A1	BOT-SB35-depth of sample
Bottom excavation samples greater than or equal to 1 ppm - remove from the top one foot below ground surface*				
SS-G9	Surface	1	A6	BOT-SSG9(1)-depth of sample
				BOT-SSG9(2)-depth of sample
				BOT-SSG9(3)-depth of sample
				BOT-SSG9(4)-depth of sample
SS-H9	Surface	1	A6	BOT-SSH9(1)-depth of sample
				BOT-SSH9(2)-depth of sample
				BOT-SSH9(3)-depth of sample
				BOT-SSH9(4)-depth of sample
SB-H9	2	1	A6	BOT-SBH9(1)-depth of sample
				BOT-SBH9(2)-depth of sample
				BOT-SBH9(3)-depth of sample
SD-5	Surface	1	A6	BOT-SD5(1)-depth of sample
				BOT-SD5(2)-depth of sample
				BOT-SD5(3)-depth of sample
SS-H10W	Surface	1	A6	BOT-SSH10W(1)-depth of sample
				BOT-SSH10W(2)-depth of sample
				BOT-SSH10W(3)-depth of sample
SS-H10S	Surface	1	A4	BOT-H10S-depth of sample
SB-H10	2	1	A4	BOT-SBH10-depth of sample
SS-H11	Surface	1	A7	BOT-SSH11(1)-depth of sample
				BOT-SSH11(2)-depth of sample
SS-I11	Surface	1	A8	BOT-SSI11-depth of sample
SB-H12	1 to 2	1	A9	BOT-SBH12-depth of sample
SB-39	1	1	A10	BOT-SB39(1)-depth of sample
				BOT-SB39(2)-depth of sample
				BOT-SB39(3)-depth of sample
SB-37	1	1	A11	BOT-SB37(1)-depth of sample
				BOT-SB37(2)-depth of sample
				BOT-SB37(3)-depth of sample
				BOT-SB37(4)-depth of sample
SB-30	1	1	A11	BOT-SB30(1)-depth of sample
				BOT-SB30(2)-depth of sample
				BOT-SB30(3)-depth of sample
				BOT-SB30(4)-depth of sample
SB-19	2	1	A11	BOT-SB19(1)-depth of sample
				BOT-SB19(2)-depth of sample
				BOT-SB19(3)-depth of sample

Table 1 Proposed Soil Sampling From Excavations
Former Adirondack Steel, Colonie, NY

Previous Location Sample ID	Prevous Sample Depth (feet bgs)	Estimated Excavation Depth (feet bgs)	Area from Figures 1 and 2	IRM Sample ID
SS19	Surface	1	A11	BOT-SS19(1)-depth of sample
				BOT-SS19(2)-depth of sample
				BOT-SS19(3)-depth of sample
SB-31	1	1	A11	BOT-SB31(1)-depth of sample
				BOT-SB31(2)-depth of sample
				BOT-SB31(3)-depth of sample
SB-23	1	1	A12	BOT-SB23-depth of sample
SB-28	2	1	A13	BOT-SB28-depth of sample
SB-29	1	1	A13	BOT-SB29-depth of sample
SB-33	1 to 2	1	A1	BOT-SB33(1)-depth of sample
				BOT-SB33(2)-depth of sample

*Up to 10 additional bottom samples may be collected pending analytical results.

Area from Figures 1 and 2	IRM Sample ID
Sidewall excavation samples greater than or equal to 10 ppm*	
A1	SIDE-A1-depth of sample (e.g. 2')
	SIDE-A1(B)-depth of sample
A2	SIDE-A2-depth of sample
	SIDE-A2(B)-depth of sample
A3	SIDE-A3-depth of sample
	SIDE-A3(B)-depth of sample
A4	SIDE-A4-depth of sample
	SIDE-A4(B)-depth of sample
A5	SIDE-A5-depth of sample
A6	SIDE-A6-depth of sample
	SIDE-A6(B)-depth of sample
	SIDE-A6(C)-depth of sample
A7	SIDE-A7-depth of sample
	SIDE-A7(B)-depth of sample
A8	SIDE-A8-depth of sample
A9	SIDE-A9-depth of sample
A10	SIDE-A10-depth of sample
	SIDE-A10(B)-depth of sample
A11	SIDE-A11-depth of sample
	SIDE-A11(B)-depth of sample
	SIDE-A11(C)-depth of sample
A12	SIDE-A12-depth of sample
A13	SIDE-A13-depth of sample
A14	SIDE-A14-depth of sample
	SIDE-A14(B)-depth of sample

*Up to five additional sidewall samples may be collected pending analytical results.

Key:

bgs = Below ground surface.
IRM = Interim Remedial Measures.

To determine if the extent of PCB contamination was excavated from each area, confirmation soil sampling will be conducted for Target Compound List (TCL) PCB analysis. EEEPC will collect soil samples at a frequency of one sample per 625 square feet included on Table 1 and from approximately 25 sidewall samples shown on Figures 1 and 2. Additional samples may be required upon consultation with NYSDEC and pending final excavation areas. Soil samples will be submitted to a laboratory subcontracted by NYSDEC on a quick turn-around time (TAT) basis (24 hours). The sampling methodology, sample collection containers, volumes, preservation, and sampling holding times for subsurface soil samples and waste disposal samples (water and soil) are stated in Table 2 and Table 3.

The backhoe bucket will be decontaminated between locations, as per Section 2.2.6. A rinsate sample will be collected for TCL PCB analysis to validate the decontamination procedure.

Table 2 Sampling Containers, Volumes, Preservation and Holding Times for Soil Samples

Parameter	Method	Containers for Soil Samples	Preservation[1]	Holding Time
Subsurface soil: TCL PCBs	SW 8082	One 8-oz. glass jar	Cool to 4°C	7 days until extraction, 40 days after extraction
Waste Disposal (soil): TCL PCBs, TCL VOCs, TCL VOCs, TAL Metals	SW 8082, 8260C, 8270D, 6010B/7471	One 8-oz. glass jar	Cool to 4°C	7 days until extraction, 40 days after extraction

Note:
[1] All samples to be cooled to 4°C. Holding times are based on verified times of sample receipt and are consistent with NYSDEC requirements.

Key:
ºC = Degrees Celsius.
oz. = Ounce.
PCB = Polychlorinated biphenyl.
SVOCs = Semivolatile Organic Compounds.
TAL = Target Analyte List.
TCL = Target Compound List.
VOCs = Volatile Organic Compounds.

Table 3 Sample Containers, Volumes, Preservation, and Holding Times for Aqueous Samples

Parameter	Method	Containers for Aqueous Samples	Preservation[1]	Holding Time[1]
Wastewater Disposal: TCL PCBs, TCL VOCs, TCL SVOCs, TAL Metals	SW 8082, 8260C, 8270D, 6010B/7471	Two 1-L amber glass with septa per organic analysis (PCBs, SVOCs), Two 40-mL glass vials with septa (VOCs), One 500-mL HDPE bottle (metals).	Cool to 4°C (VOCs, SVOCs, PCBs), HNO_3 pH <2 (metals).	7 days for extraction, 40 days for analysis (VOCs, SVOCs, PCBs), 180 days (metals).

Note:
[1] All samples to be cooled to 4°C. Holding times are based on verified times of sample receipt and are consistent with NYSDEC requirements.

Key:
°C = Degrees Celsius.
HDPE = High density polyethylene.
L = Liter.
mL = Milliliter.
PCB = Polychlorinated biphenyl.
TAL = Target Analyte List.
TCL = Target Compound List.
SVOCs = Semivolatile Organic Compounds.
VOCs = Volatile Organic Compounds.

Excavation and Sampling Equipment

- Backhoe;
- Standard or digital camera;
- PID and oxygen/explosimeter;
- Pin survey flags and/or wooden stakes;
- Tape measure;
- Dedicated precleaned stainless-steel spoons;
- Dedicated bowls or pans;
- Appropriate sample containers (see Tables 2 and 3); and
- A cooler with ice.

Procedures

- Before any excavation activities, the excavation subcontractor may use a metal detector to locate any potential sub-slab utilities for interior locations.

- Excavate with a standard backhoe and monitor the excavation for organic vapors using a PID and explosive conditions using an oxygen/explosimeter.

- Place excavated material temporarily adjacent to the excavation site until the excavation is complete.

- Collect one confirmation soil sample from the bottom of the excavation in the location of the most contaminated sample collected during the RI and one additional sample at a location chosen without bias to previous knowledge of contaminated areas.

- Collect one sidewall sample of each completed excavation.

- If necessary, collect the samples from the backhoe bucket using a precleaned stainless-steel spoon, or by lowering a glass jar attached to an extension rod into the excavation. Place the soil in a pan, mix thoroughly removing all stones and debris, and fill the appropriate sample containers. Submit the soil samples for TCL PCB analyses. Place the sample in a cooler maintained with ice at 4°C.

- Label, package, ship or deliver samples according to procedures described in Section 2.2.9.

- Record excavation dimensions, location, orientation and a lithologic description in the field logbook. Document the contents of each excavation with photographs.

- Decontaminate the backhoe bucket according to procedures described in Section 2.2.6.

2.2.3 Asbestos Removal

During the RI, an asbestos inspection, survey, and sampling was performed of suspected asbestos-containing materials remaining in the buildings and demolition debris at the site. One of the immediate hazards identified was the 110-foot collapsed chimney from the on-site powerhouse. The chimney is lined with refractory brick and insulation. Upon analysis, the insulation was found to contain 15% to 27% Chrysotile and 9% to 15% amosite asbestos. The insulation materials are in poor condition as a result of the chimney collapse. The chimney must be removed to facilitate access to some of the PCB soil excavations.

This scope of work does not include the abatement and disposal of the collapsed chimney associated with the friable asbestos-containing materials. All asbestos abatement and disposal work (including collapsed chimney removal) will be completed prior to excavation activities by a subcontractor hired by NYSDEC in accordance with New York

State Department of Labor (NYSDOL) Industrial Code Rule (ICR) 56. The subcontractors should not mix Toxic Substances Control Act (TSCA) waste with non-TCSA waste for disposal purposes. The collapsed chimney will be removed prior to excavation of soils in close proximity to it. It is assumed that the collapsed chimney removal, asbestos abatement and disposal work will be completed in September 2008. EEEPC will not be conducting oversight for the asbestos abatement and disposal work.

2.2.4 Air Monitoring

The subcontractors hired by NYSDEC will be directed to minimize the generation of dust on site during fieldwork. The site safety officer will perform air monitoring during site activities to characterize airborne contaminant concentrations, including those of volatile organic vapors and explosive gases. Air monitoring will be conducted for the protection of site workers and the community and to characterize environmental samples. The program is detailed in the Community Air Monitoring Plan presented in Attachment C. The HASP (see Attachment A) specifies the monitoring equipment to be used for contaminants of interest and the frequency with which the monitoring will be performed.

Action levels for each monitoring instrument are also detailed in the HASP. Organic vapor concentrations will be measured in the workers' breathing zone air. Oxygen-deficient and combustible atmospheres will not be monitored at the workers' breathing zone. Instead, these monitors will be positioned at a location (e.g., near the excavation areas) that will measure a worst-case contaminant level and will provide the earliest possible warning that a hazardous condition may be forming.

In order to protect the community from excessive particulate (particulate matter of 10 microns or less [PM_{10}]) and volatile organic compound (VOC) levels during excavation activities, PM_{10} air monitors (e.g., MIE DataRams) will be located at both the upwind and downwind perimeters of the exclusion zone. Once groundwater is encountered and dust potential is eliminated, air monitoring will no longer be required. Downwind organic vapor monitoring will be conducted with a PID (e.g., MiniRAE 2000) on a continuous basis during active excavation activities. Monitoring shall include monitoring the breathing zone at the work site and sample screening.

2.2.5 Site Survey

Survey points requiring horizontal reference only will be surveyed using a Trimble GeoXT or equivalent (with sub-meter accuracy), where possible. Locations without global positioning system reception will be measured to fixed site features (e.g., buildings) using a tape measure.

Survey data will be used to develop an updated site base map, a copy of which will be presented in the IRM report.

2.2.6 Decontamination

A temporary decontamination pad will be constructed on site. The pad shall be constructed in a manner that prevents all fluids used during the decontamination procedure from reaching the ground surface and also provides for the collection of all decontamination liquids and runoff from the equipment as it is decontaminated. The

liquids shall be stored in New York State Department of Transportation-approved 55-gallon drums for characterization and disposal.

The decontamination pad will serve as the area where decontamination of all equipment shall be performed. This will prevent PCB impacted soils and decontamination fluids from entering the ground surface and provide for centrally locating materials required for the following decontamination procedure.

Procedure:

- Once equipment is on the decontamination pad, large pieces of foreign material such as soil, rock, or other debris should be removed by mechanical means.

- A water based CAPSUR(R) solution mixed to manufacturer specifications of four parts water to one part CAPSUR(R) shall be uniformly applied to the equipment to be decontaminated using a high-pressure, low-volume pressure washer.

- Once applied, the solution will remain on the equipment for a minimum of five minutes.

- For non-disposable sampling equipment that will be used to collect samples for the purposes of waste characterization prior to disposal, decontamination of such equipment shall include an application of Alconox via scrub brush.

- Rinse the CAPSUR(R) solution from the equipment with deionized water using a second pressure washer or high-pressure steam cleaner.

- When equipment samples are required to confirm effectiveness of decontamination procedures, equipment should be allowed to dry prior to collection. Wipe samples will be collected from surfaces of the equipment utilized to provide a representative residual PCB concentration. At least one sample will be collected from each unique portion of the equipment in contact with soils in the excavation areas, including tracks, bucket, or other surfaces, such as horizontal surfaces where deposition of dust particles is possible. The sample should be collected from a 100-square-centimeter area.

2.2.7 Remedial Activity-Derived Waste (RADW) Management

The following types of remedial activity-derived waste (RADW) are expected to be generated: excavated soil (hazardous and non-hazardous), decontamination water, and spent personal protective equipment (PPE). Waste streams will be segregated to the maximum extent possible. EEEPC estimates 2,000 cubic yards of soil, will be generated. Approximately eight piles, each containing approximately 250 cubic yards of soil, will be created and one soil sample will be collected from each pile for waste disposal. EEEPC will attempt to keep hazardous soil in designated hazardous soil piles and non-hazardous soil in designated non-hazardous soil piles using PID readings and knowledge from previous soil sample results.

Remedial activity-derived soils will be stockpiled onsite pending analysis and disposal. PPE and other site trash generated during the IRM (as long as it is deemed uncontaminated) and all investigation-derived water will be drummed (55-gallon DOT-approved drums) and stored on-site pending analysis and disposal. All drums containing RADW will be labeled as to their contents, the site name, location where the material was generated, and date the waste was generated.

Remedial activity-derived soils and water will be field-screened for organic vapors with a PID and visually inspected to initially determine whether these wastes are potentially contaminated. Decontamination water that do not exhibit signs of contamination (e.g., PID readings of 5 ppm or less and lack of staining, sheen) will be discharged to the surface near the site of generation or as close as reasonably possible. Any wastes that provide an indication of contamination (e.g., PID readings greater than 5 ppm, staining, sheen, odor) will be containerized in DOT-approved 55-gallon drums and stored on site pending analysis and disposal.

If the disposal facility accepts the analytical data currently available for the site soil, no additional samples will be collected. However, if the disposal facility requires new soil data, RADW soil samples will be analyzed for TCL PCBs, TCL VOCs, TCL semivolatile organic compounds (SVOCs) and TAL Metals to characterize the waste for disposal. RADW water will consist of decontamination water. RADW water will be analyzed for TCL PCBs, TCL VOCs, TCL SVOCs and TAL Metals to characterize the waste for disposal. All samples will be analyzed using quick turnaround time (three business days).

Pending the results of the analyses, soils and water will be hauled off-site to an appropriate disposal facility by a subcontractor hired by NYSDEC. Since the amount of RADW that will be generated is estimated, the number of samples required will be determined after the completion of the investigation but is estimated at one wastewater sample and eight soil waste samples. For purposes of creating a cost plan, it is assumed that five additional soil waste samples may be collected. Unless field screening indicates that PPE and other solid wastes are contaminated to the level that they can not be disposed of as non-hazardous waste, this material will be disposed of off site as non-regulated solid waste. Hazardous waste will be hauled off site to an appropriate disposal facility.

EEEPC will coordinate the waste disposal with the NYSDEC project manager to ensure that NYSDEC is available to sign the waste shipping manifest(s), as legally NYSDEC is the waste generator.

2.2.8 Field Quality Control Samples

Table 4 provides a summary of field quality control (QC) samples to be collected for the investigation. Field QC samples include field duplicates, rinsate blanks, and additional volume for laboratory matrix spike/matrix spike duplicate analyses. Field duplicates will be collected from aqueous and solid samples at a frequency of one per 20 samples. Rinsate blanks will be collected from any non-dedicated or non-disposable sampling equipment. Rinsate blanks will be collected by passing deionized water over the

Table 4 **Proposed Sampling and Chemical Analysis Summary**
Former Adirondack Steel Site
Colonie, New York

Analysis	Method	Turn Around Time	Number of Field Samples	QA/QC Samples					Total Number of Samples
				Field Duplicates	Trip Blanks	Rinsate Blank	MS	MSD	
Excavation Subsurface Soil									
TCL PCBs	SW 8082	3-Day	90	4	0	4	4	4	106
Remedial Activity-Derived Waste, Wipe Samples									
TCL PCBs	SW 8082	Standard	10	0	0	0	0	0	10
Remedial Activity-Derived Waste, Solids									
TCL PCBs	SW 8082	3-Day	13	0	0	0	0	0	13
TCL VOCs	8260C	3-Day	13	0	0	0	0	0	13
TCL SVOCs	8270D	3-Day	13	0	0	0	0	0	13
TAL Metals	6010B/7471	3-Day	13	0	0	0	0	0	13
Remedial Activity-Derived Waste, Liquid									
TCL PCBs	SW 8082	Standard	1	0	0	0	0	0	1
TCL VOCs	8260C	Standard	1	0	0	0	0	0	1
TCL SVOCs	8270D	Standard	1	0	0	0	0	0	1
TAL Metals	6010B/7471	Standard	1	0	0	0	0	0	1

Key:

MS = matrix spike
MSD = matrix spike duplicate.
PCB = polychlorinated biphenyl
QA = quality assurance
QC = quality control
SVOC = semivolatile organic compounds.
TAL = target analyte list.
TCL = target compound list.
VOC = volatile organic compounds.

equipment after decontamination is completed. One rinsate blank will be collected from each non-dedicated equipment item for every 20 samples collected. The only non-dedicated equipment that may be used during this investigation is the backhoe bucket. Additional details pertaining to field QC requirements are included in the QAPP in Attachment C.

2.2.9 Sample Management

Sample Containers and Preservation

The volumes and containers for soil and water samples as well as sample preservation and holding time requirements are presented in Tables 2 and 3. Pre-washed sample containers will be provided by the analytical laboratory. Soil and water samples will be stored on ice pending delivery to the analytical laboratory.

Sample Labeling, Packaging and Shipping, and Custody

Sample Labeling. All samples will be assigned a unique sample identifier (see QAPP in Attachment B). Labels for each sample container will contain the sample identifier, date of sample collection, analytical parameters, and type of preservation used. The sampler will initial any change in the label information prepared prior to sample collection.

Sample Packaging and Shipping. Soil and water sample containers will be placed inside sealed plastic bags as a precaution against cross-contamination caused by leakage or breakage. They will be placed in coolers in such a manner as to eliminate the chance of breakage during shipment and ice in plastic bags will be placed in the coolers to keep the samples at 4°C throughout shipment.

Sample shipment will be performed in strict accordance with all applicable DOT regulations. The samples will be shipped or delivered to the subcontracted laboratory by overnight shipping. Arrangements will be made with the subcontracted laboratory's project manager for samples that are to be delivered to a laboratory on a weekend so that holding times are not compromised. The laboratory will be subcontracted by NYSDEC.

Sample Custody. A sample is considered to be in custody under the following conditions:

- The sample is directly in one's possession;
- The sample is clearly in one's view;
- The sample is placed in a locked location; or
- The sample is in a designated secure area.

In order to demonstrate that the samples and coolers have not been tampered with during shipment, adhesive custody seals will be used. The custody seals will be placed across the cooler lids in such a manner that they will be visibly disturbed upon opening the

sample container or cooler. The seals will be signed or initialed and dated by field personnel at the time they are affixed to the cooler.

Documentation of sample chain of custody (COC) form is necessary to demonstrate that the integrity of the samples has not been compromised between collection and delivery to the laboratory. A COC record will accompany each sample cooler to document the transfer of custody from the field to the laboratory. All information requested in the COC record will be completed. One copy of the COC form will be retained by the sampler and placed in the project records file. The remaining pages will be sealed in a plastic bag and placed inside the cooler. Upon receipt at the laboratory, the COC forms will be completed. It is the responsibility of the subcontracted laboratory to document the condition of custody seals and sample integrity upon receipt.

2.2.10 Analytical Program

All wipe samples (collected from decontaminated equipment) will be submitted for analysis of TCL PCBs only using EPA Method SW 8082. All aqueous samples will be submitted for analysis of TCL PCBs only using EPA Method SW 8082. All soil samples (bottom and sidewall confirmation soil samples) will be submitted for analysis of TCL PCBs only using EPA Method SW 8082. The soil samples will be analyzed using a quick turnaround time (24 hours) to determine if the excavation area should be expanded to remove PCB-contaminated soil. The laboratory providing analytical services will be contracted directly by NYSDEC. It is assumed for purposes of review that the laboratory selected by NYSDEC will provide EEEPC with an electronic data deliverable consistent with the EPA Region 2 Multimedia Electronic Data Deliverable (MEDD) format and a NYSDEC Analytical Services Protocol Category "B"-like report.

2.3 Reporting

A draft and final IRM report will be prepared and will consist of investigation procedures undertaken, data gathered, and data interpretation. All analytical data will be reviewed by an EEEPC data validator who will prepare a Data Usability Summary Report (DUSR). DUSRs for all laboratory analytical data will also be included in the report. Contaminant concentrations will be screened against appropriate standards, criteria, and guidelines or other guidance to be considered.

3. Schedule

The schedule in Table 5 provides tentative dates for completing work activities. Actual dates may vary depending on notice to proceed.

Table 5 Schedule

Task	Start Date	End Date
Submit final work plan	--	April 27, 2009
Field work	May 4, 2009	May 15 to 29, 2009
Submit draft report	--	June 26, 2009
NYSDEC report review	June 29, 2009	July 27, 2009
Submit final report	--	August 31, 2009

4. Staffing Plan

EEEPC proposes the following primary staffing plan for completion of this work assignment.

Program Manager: Dave Albers, P.E.
Project Manager: Marcy Werth
Task Manager: Gene Florentino, P.G.

Task 1: Work Plan

G. Florentino, P.G. – Report Review
M. Werth – Project Management, Report Preparation

Task 2: Field Investigation

M. Werth, - Project Manager, Field Team Leader
M. Kunapuli – Site Safety Officer

Task 3: Reporting

M. Werth – Project Manager. Report Preparation
G. Florentino, P.G. – Report Review

5. Costing Plan

EEEPC has prepared a draft costing plan which is bound separately.

Please contact me, Marcy Werth, or Gene Florentino if you have questions regarding this work plan and costing plan addendum.

Sincerely,

David P. Albers, P.E.
Contract Manager

cc: M. Werth

Attachment A

Ecology and Environment Engineering P.C.

SITE-SPECIFIC
HEALTH AND SAFETY PLAN

Project: Former Adirondack Steel Site

Project No.: 002699.ID10

TDD/PAN No.: _____

Project Location: 191, 225, 227 and 229 Watervliet Shaker Road, Colonie, New York, Albany County

Proposed Date of Field Activities: October or November 2008

Project Director: Dave Albers

Project Manager: Marcy Werth

Prepared by: Marcy Werth Date Prepared: September 15, 2008

Approved by: _____ Date Approved: _____

1. INTRODUCTION

1.1 POLICY

It is E & E's policy to ensure the health and safety of its employees, the public, and the environment during the performance of work it conducts. This site-specific health and safety plan (SHASP) establishes the procedures and requirements to ensure the health and safety of E & E employees for the above-named project. E & E's overall safety and health program is described in *Corporate Health and SafetyProgram for Toxic and Hazardous Substances* (CHSP). After reading this plan, applicable E & E employees shall read and sign E & E's Site-Specific Health and Safety Plan Acceptance form.

This SHASP has been developed for the sole use of E & E employees and is not intended for use by firms not participating in E & E's training and health and safety programs. Subcontractors are responsible for developing and providing their own safety plans.

This SHASP has been prepared to meet the following applicable regulatory requirements and guidance:

Applicable Regulation/Guidance
29 CFR 1910.120, Hazardous Waste Operations and Emergency Response (HAZWOPER)
Other:

1.2 SCOPE OF WORK

Description of Work: Supervise subcontractors during excavation activities (polychlorinated biphenyl [PCB]contaminated soil) and conduct confirmation soil sampling activities during interim remedial measures activities at the Former Adirondack Steel site. NYSDEC is hiring all subcontractors.

Equipment/Supplies: Attachment 1 contains a checklist of equipment and supplies that will be needed for this work.

The following is a description of each numbered task:

Task Number	Task Description
I	Supervise the excavation of PCB contaminated soil.
II	Direct contractor where samples should be collected. Collect confirmation soil samples from each excavated area.

1.3 SITE DESCRIPTION

Site Map: A site map or sketch is attached at the end of this plan.

Site History/Description (see project work plan for detailed description): The Former Adirondack Steel facility is located at 191, 225, 227 and 229 Watervliet Shaker Road in Colonie, New York. A previous investigation of subsurface soils, sediment, surface water and groundwater were performed in 2006, 2007 and 2008 at the direction of the NYSDEC. Sample analysis revealed concentrations of PCBs, VOCs and metals in the subsurface soil near the landfill and the east side of the property. Metals were also found in the groundwater samples during the previous site investigation.

Is the site currently in operation? Yes X No

Locations of Contaminants/Wastes: Contaminants are found in the subsurface soil on the east side of the property and the landfill. Groundwater samples collected during the previous investigation contained metals. The excavated soil removed during this IRM will contain PCBs.

Types and Characteristics of Contaminants/Wastes:

X Liquid	X Solid	Sludge	Gas/Vapor
Flammable/Ignitable	Volatile	Corrosive	Acutely Toxic
Explosive	Reactive	Carcinogenic	Radioactive
Medical/Pathogenic	Other:		

2. ORGANIZATION AND RESPONSIBILITIES

E & E team personnel shall have on-site responsibilities as described in E & E's standard operating procedure (SOP) for Site Entry Procedures (GENTECH 2.2) The project team, including qualified alternates, is identified below.

Name	Site Role/Responsibility
Marcy Werth/Gene Florentino	Project/Task Manager
Marcy Werth Mahesh Kunapuli/Site Safety Officer	Site Representatives - review contractor's health and safety procedures/ Site Safety Officer**

**As it pertains to work performed by E & E.

3. TRAINING

Prior to work, E & E team personnel shall have received training as indicated below. As applicable, personnel shall have read the project work plan, sampling and analysis plan, and/or quality assurance project plan prior to project work.

Training	Required
40-Hour OSHA HAZWOPER Initial Training and Annual Refresher (29 CFR 1910.120)	X
Annual First Aid/CPR	X
Hazard Communication (29 CFR 1910.1200)	X
40-Hour Radiation Protection Procedures and Investigative Methods	
8-Hour General Radiation Health and Safety	
Radiation Refresher	
DOT and Biannual Refresher	X
Other: General Construction Safety Review -26 CFR 1926	X

4. MEDICAL SURVEILLANCE

4.1 MEDICAL SURVEILLANCE PROGRAM

E & E field personnel shall actively participate in E & E's medical surveillance program as described in the CHSP and shall have received, within the past year, an appropriate physical examination and health rating.

E & E's health and safety record (HSR) form will be maintained on site by each E & E employee for the duration of his or her work. E & E employees should inform the site safety officer (SSO) of any allergies, medical conditions, or similar situations that are relevant to the safe conduct of the work to which this SHASP applies.

Is there a concern for radiation at the site? Yes X No
If no, go to 5.1.

4.2 RADIATION EXPOSURE

4.2.1 External Dosimetry

Thermoluminescent Dosimeter (TLD) Badges: TLD badges are to be worn by all E & E field personnel on certain required sites.

Pocket Dosimeters:

Other:

4.2.2 Internal Dosimetry

Whole body count Bioassay Other

Requirements:

4.2.3 Radiation Dose

Dose Limits: E & E's radiation dose limits are stated in the CHSP. Implementation of these dose limits may be designated on a site-specific basis.

Site-Specific Dose Limits:
ALARA Policy: Radiation doses to E & E personnel shall be maintained as low as reasonably achievable (ALARA), taking into account the work objective, state of technology available, economics of improvements in dose reduction and safety, and other societal and socioeconomic considerations.

5. SITE CONTROL

5.1 SITE LAYOUT AND WORK ZONES

Site Work Zones: A site work zone will be setup for each excavation location by E&E.

Site Access Requirements and Special Considerations: None

Illumination Requirements: None

Sanitary Facilities (e.g., toilet, shower, potable water): Need to go offsite for potable water and toilet.

On-Site Communications: E&E will bring cellular phones for work completed in the field.

Other Site-Control Requirements: Dust controls and access controls are installed by E&E Safety Officer.

5.2 SAFE WORK PRACTICES

Daily Safety Meeting: A daily safety meeting will be conducted for all oversight personnel and documented by the Contractor in the field logbook and daily safety meeting log. The information and data obtained daily from the Contractor will be addressed in the safety meetings and also used to update this HASP, as necessary.

Work Limitations: Work shall be limited to a maximum of 12 hours per day. Work will be conducted in daylight hours unless prior approval is obtained and the illumination requirements in 29 CFR 1910.120(m) are satisfied.

It is anticipated that two E & E site representatives will be on-site for site work, working 12 hours. Working hours are anticipated to be between 7 am and 7 pm.

Weather Limitations: Drilling shall not be conducted during electrical storms.

Other Work Limitations: No confined entry allowed.

Buddy System: Two E & E site representatives will be onsite each day.

Line of Sight: The site representative shall remain in the line of sight and within verbal communication of at least one other team member (team member could include Contractor staff).

Eating, Drinking, and Smoking: Eating, drinking, smoking, and the use of tobacco products shall be prohibited in the exclusion and contamination reduction areas, at a minimum, and shall only be permitted in designated areas.

Contamination Avoidance: Field personnel shall avoid unnecessary contamination of personnel, equipment, and materials to the extent practicable.

Sample Handling: Protective gloves of a type designated in Section 7 will be worn when containerized samples are handled for labeling, packaging, transportation, and other purposes.

Vermiculite Handling: None

Other Safe Work Practices: Hard hat, safety glasses, and steel toed boots are required at all times while on-site. Any excavated areas inspected below five feet will require trench shields or sheeting and shoring.

6. HAZARD EVALUATION AND CONTROL

6.1 PHYSICAL HAZARD EVALUATION AND CONTROL

Potential physical hazards and their applicable control measures are described in the following table for each task.

Hazard	Task Number	Hazard Control Measures
Biological (flora, fauna, etc.)	**I, II**	▪ Potential hazard: Animal bites or stings. ▪ Establish site-specific procedures for working around identified hazards. ▪ Other:

Hazard	Task Number	Hazard Control Measures
Cold Stress	**N/A**	▪ Provide warm break area and adequate breaks. ▪ Provide warm noncaffeinated beverages. ▪ Promote cold stress awareness. ▪ See *Cold Stress Prevention and Treatment* (attached at the end of this plan if cold stress is a potential hazard).
Compressed Gas Cylinders	**N/A**	▪ Use caution when moving or storing cylinders. ▪ A cylinder is a projectile hazard if it is damaged or its neck is broken. ▪ Store cylinders upright and secure them by chains or other means. ▪ Other:
Confined Space	N/A	▪ Ensure compliance with 29 CFR 1910.146. ▪ See SOP for Confined Space Entry. Additional documentation is required. ▪ Other:
Drilling	**N/A**	▪ See SOP for Health and Safety on Drilling Rig Operations. Additional documentation may be required. ▪ Landfill caps will not be penetrated without prior discussions with corporate health and safety staff. ▪ Other:
Drums and Containers	**I** **II**	▪ Ensure compliance with 29 CFR 1910.120(j). ▪ Consider unlabeled drums or containers to contain hazardous substances and handle accordingly until the contents are identified. ▪ Inspect drums or containers and assure integrity prior to handling. ▪ Move drums or containers only as necessary; use caution and warn nearby personnel of potential hazards. ▪ Open, sample, and/or move drums or containers in accordance with established procedures; use approved drum/container-handling equipment. ▪ Other:

Hazard	Task Number	Hazard Control Measures
Electrical	**I**	▪ Ensure compliance with 29 CFR 1910 Subparts J and S. ▪ Locate and mark energized lines. ▪ De-energize lines as necessary. ▪ Ground all electrical circuits. ▪ Guard or isolate temporary wiring to prevent accidental contact. ▪ Evaluate potential areas of high moisture or standing water and define special electrical needs. ▪ Other:
Excavation and Trenching	**I, II**	▪ Ensure that excavations comply with and personnel are informed of the requirements of 29 CFR 1926 Subpart P. ▪ Ensure that any required sloping or shoring systems are approved as per 29 CFR 1926 Subpart P. ▪ Identify special personal protective equipment (PPE) (see Section 7) and monitoring (see Section 8) needs if personnel are required to enter approved excavated areas or trenches. ▪ Maintain line of sight between equipment operators and personnel in excavations/trenches. Such personnel are prohibited from working in close proximity to operating machinery. ▪ Suspend or shut down operations at signs of cave in, excessive water, defective shoring, changing weather, or unacceptable monitoring results. ▪ Other:
Fire and Explosion	**I**	▪ Inform personnel of the location(s) of potential fire/explosion hazards. ▪ Establish site-specific procedures for working around flammables. ▪ Ensure that appropriate fire suppression equipment and systems are available and in good working order. ▪ Define requirements for intrinsically safe equipment. ▪ Identify special monitoring needs (see Section 8). ▪ Remove ignition sources from flammable atmospheres. ▪ Coordinate with local fire-fighting groups regarding potential fire/explosion situations.

Hazard	Task Number	Hazard Control Measures
		▪ Establish contingency plans and review daily with team members. ▪ Other:
Heat Stress	**N/A**	▪ Provide cool break area and adequate breaks. ▪ Provide cool noncaffeinated beverages. ▪ Promote heat stress awareness. ▪ Use active cooling devices (e.g., cooling vests) where specified. ▪ See *Heat Stress Prevention and Treatment* (attached at the end of this plan if heat stress is a potential hazard).
Heavy Equipment Operation	**I**	▪ Define equipment routes, traffic patterns, and site-specific safety measures. ▪ Ensure that operators are properly trained and equipment has been properly inspected and maintained. Verify back-up alarms. ▪ Ensure that ground spotters are assigned and informed of proper hand signals and communication protocols. ▪ Identify special PPE (Section 7) and monitoring (Section 8) needs. ▪ Ensure that field personnel do not work in close proximity to operating equipment. ▪ Ensure that lifting capacities, load limits, etc., are not exceeded. ▪ Other:
Heights (Scaffolding, Ladders, etc.)	**N/A**	▪ Ensure compliance with applicable subparts of 29 CFR 1910. ▪ Identify special PPE needs (e.g., lanyards, safety nets, etc.) ▪ Other:
Noise	**I**	▪ Establish noise level standards for on-site equipment/operations. ▪ Inform personnel of hearing protection requirements (Section 7). ▪ Define site-specific requirements for noise monitoring (Section 8). ▪ Other:
Overhead Obstructions	**I**	▪ Wear hard hat. ▪ Other:

Hazard	Task Number	Hazard Control Measures
Power Tools	**I**	▪ Ensure compliance with 29 CFR 1910 Subpart P. ▪ Other:
Sunburn	**I, II**	▪ Apply sunscreen. ▪ Wear hats/caps and long sleeves. ▪ Other:
Utility Lines	**I, II**	▪ Identify/locate existing utilities prior to work. ▪ Ensure that overhead utility lines are at least 25 feet away from project activities. ▪ Contact utilities to confirm locations, as necessary. ▪ Other:
Weather Extremes	**I, II**	▪ Potential hazards: high winds or heavy rains ▪ Establish site-specific contingencies for severe weather situations. ▪ Provide for frequent weather broadcasts. ▪ Weatherize safety gear, as necessary (e.g., ensure eye wash units cannot freeze, etc.). ▪ Identify special PPE (Section 7) needs. ▪ Discontinue work during severe weather. ▪ Other:
Other: Slip, Trip and Fall	**I, II**	

6.2 CHEMICAL HAZARD EVALUATION AND CONTROL

6.2.1 Chemical Hazard Evaluation

Potential chemical hazard sheets for major known contaminants are attached at the end of this plan.

6.2.2 Chemical Hazard Control

An appropriate combination of engineering/administrative controls, work practices, and PPE shall be used to reduce and maintain employee exposures to a level at or below published exposure levels (see Section 6.2.1).

Applicable Engineering/Administrative Control Measures: Per the Contractor's Work Plan.

PPE: See Section 7.

6.3 RADIOLOGICAL HAZARD EVALUATION AND CONTROL

6.3.1 Radiological Hazard Evaluation

Potential radiological hazards are described below by task number. Hazard Evaluation Sheets for major known contaminants are attached at the end of this plan.

Task Number	Radionuclide	DAC (μCi/ml)	Route(s) of Exposure	Major Radiation(s)	Energy(s) (MeV)	Half-Life

6.3.2 Radiological Hazard Control

Engineering/administrative controls and work practices shall be instituted to reduce and maintain employee exposures to a level at or below the permissible exposure/dose limits (see sections 4.2.3 and 6.3.1). Whenever engineering/administrative controls and work practices are not feasible or effective, any reasonable combination of engineering/administrative controls, work practices, and PPE shall be used to reduce and maintain employee exposures to a level at or below permissible exposure/dose limits.

Applicable Engineering/Administrative Control Measures:

PPE: See Section 7.

7. LEVEL OF PROTECTION AND PERSONAL PROTECTIVE EQUIPMENT

7.1 LEVEL OF PROTECTION

The following levels of protection (LOPs) have been selected for each work task based on an evaluation of the potential or known hazards, the routes of potential hazard, and the performance specifications of the PPE. On-site monitoring results and other information obtained from on-site activities will be used to modify these LOPs and the PPE, as necessary, to ensure sufficient personnel protection. The authorized LOP and PPE shall only be changed with the approval of the regional safety coordinator or designee. Level A is not included below because Level A activities, which are performed infrequently, will require special planning and addenda to this SHASP.

Task Number	B	C	D	Modifications Allowed
I		(X)	X	Level D for site activities, unless monitoring equipment indicates upgrade to level C.
II		(X)	X	

Note: Use "X" for initial levels of protection. Use "(X)" to indicate levels of protection that may be used as site conditions warrant.

7.2 PERSONAL PROTECTIVE EQUIPMENT

The PPE selected for each task is indicated below. E & E's PPE program complies with 29 CFR 1910.120 and 29 CFR 1910 Subpart I and is described in detail in the CHSP. Refer to 29 CFR 1910 for the minimum PPE required for each LOP.

PPE	Task Number/LOP					
	I	**II**				
Full-face APR	(X)	(X)				
PAPR						
Cartridges:						
P100						
GMC-P100						
GME-P100						
Other:						
Positive-pressure, full-face SCBA						
Spare air tanks (Grade D air)						
Positive-pressure, full-face, supplied-air system						
Cascade system (Grade D air)						
Manifold system						
5-Minute escape mask						
Safety glasses	X	X				
Monogoggles						
Coveralls/clothing	X	X				
Protective clothing:						
Tyvek	(X)	(X)				
Saranex						
Other:						
Splash apron						
Inner gloves:						

PPE	Task Number/LOP					
	I	II				
Cotton						
Nitrile						
Latex						
Other:						
Outer gloves:						
Viton						
Rubber						
Neoprene						
Nitrile	X	X				
Other:						
Work gloves						
Safety boots (as per ANSI Z41)	X	X				
Neoprene safety boots (as per ANSI Z41)						
Boot covers (type: rubber_____)						
Hearing protection (type: muffs _)	X	X				
Hard hat	X	X				
Face shield						
Other:						

8. HEALTH AND SAFETY MONITORING

Health and safety monitoring will be conducted to ensure proper selection of engineering/administrative controls, work practices, and/or PPE so that employees are not exposed to hazardous substances at levels that exceed permissible exposure/dose limits or published exposure levels. Health and safety monitoring will be conducted using the instruments, frequency, and action levels described in Table 8-1. Health and safety monitoring instruments shall have been appropriately calibrated and/or performance-checked prior to use.

Table 8-1

HEALTH AND SAFETY MONITORING

Instrument	Task Number	Contaminant (s)	Monitoring Location	Monitoring Frequency	Action Levels[a]	
X PID (e.g., HNu IS-101) □ FID (e.g., OVA 128-GC)	I, II				**Unknown Vapors** Background to 1 ppm: Level D 1 to 5 ppm above background: Level C 5 to 500 ppm above background: Level B >500 ppm above background: Level A	**Contaminant-Specific**
Oxygen Meter/Explosimeter	I, II				**Oxygen** <19.5% or >22.0%: Evacuate area; eliminate ignition sources; reassess conditions. 19.5 to 22.0%: Continue work in accordance with action levels for other instruments.	**Explosivity** ≤10% LEL: Continue work in accordance with action levels for other instruments; monitor continuously for combustible atmospheres. >10% LEL: Evacuate area; eliminate ignition sources; reassess conditions.
Radiation Alert Monitor (Rad-mini or RAM-4)					<0.1 mR/hr: Continue work in accordance with action levels for other instruments. ≥0.1 mR/hr: Evacuate area; reassess work plan and contact radiation safety specialist.	
Mini-Ram Particulate Monitor HCN/H_2S (Monitox)	I, II				**General/Unknown** Evaluate health and safety measures when dust levels exceed 2.5 milligrams per cubic meter. ≥4 ppm: Leave area and consult with SSO.	**Contaminant-Specific**

Table 8-1

HEALTH AND SAFETY MONITORING

Instrument	Task Number	Contaminant (s)	Monitoring Location	Monitoring Frequency	Action Levels[a]
Draeger Colorimetric Tubes					**Tube** **Action Level** **Action**
Air Monitor/Sampler Type:_____ Sampling medium: _____					**Action Level** **Action**
Personal Sampling Pump Type:_____ Sampling medium: _____					**Action Level** **Action**
Micro R Meter					<2 mR/hr: Continue work in accordance with action levels for other instruments. 2 to 5 mR/hr: In conjunction with a radiation safety specialist, continue work and perform stay-time calculations to ensure compliance with dose limits and ALARA policy. >5 mR/hr: Evacuate area to reassess work plan and evaluate options to maintain personnel exposures ALARA and within dose limits.
Ion Chamber					See micro R meter action levels above.

Table 8-1 HEALTH AND SAFETY MONITORING					
Instrument	**Task Number**	**Contaminant (s)**	**Monitoring Location**	**Monitoring Frequency**	**Action Levels[a]**
Radiation Survey Ratemeter/Scaler with External Detector(s)					**Detector** **Action Level** **Action**
Noise Dosimeter (Sound Level Meter)					≤85 decibels as measured using the A-weighed network (dBa): Use hearing protection if exposure will be sustained throughout work shift. >85 dBA: Use hearing protection. >120 dBA: Leave area and consult with safety personnel.
Other:					
Other:					

[a]Unless stated otherwise, airborne contaminant concentrations are measured as a time-weighted average in the worker's breathing zone. Acceptable concentrations for known airborne contaminants will be determined based on OSHA/NIOSH/ACGIH and/or NRC exposure limits. As a guideline, 1/2 the PEL/REL/TLV, whichever is lower should be used.

9. DECONTAMINATION PROCEDURES

All equipment, materials, and personnel will be evaluated for contamination upon leaving the exclusion area. Equipment and materials will be decontaminated and/or disposed and personnel will be decontaminated, as necessary. Decontamination will be performed in the contamination reduction area or any designated area such that the exposure of uncontaminated employees, equipment, and materials will be minimized. Specific procedures are described below.

Equipment/Material Decontamination Procedures (specified by work plan: TSP or baby wipes

Ventilation: All decontamination procedures will be conducted in a well-ventilated area.

Personnel Decontamination Procedures: Per Contractor Work Plan

PPE Requirements for Personnel Performing Decontamination: NA

Personnel Decontamination in General: Following appropriate decontamination procedures, all field personnel will wash their hands and face with soap and potable water. Personnel should shower at the end of each work shift.

Disposition of Disposable PPE: Disposable PPE must be rendered unusable and disposed as indicated in the Contractor work plan.

Disposition of Decontamination Wastes (e.g., dry wastes, decontamination fluids, etc.):

10. EMERGENCY RESPONSE

This section contains additional information pertaining to on-site emergency response and does not duplicate pertinent emergency response information contained in earlier sections of this plan (e.g., site layout, monitoring equipment, etc.). Emergency response procedures will be rehearsed regularly, as applicable, during project activities.

10.1 EMERGENCY RESPONSIBILITIES

All Personnel: All personnel shall be alert to the possibility of an on-site emergency; report potential or actual emergency situations to the team leader and the SSO; and notify appropriate emergency resources, as necessary.

Team Leader: The team leader will determine the emergency actions to be performed by E & E personnel and will direct these actions. The team leader also will ensure that applicable incidents are reported to appropriate E & E and client project personnel and government agencies.

SSO: The SSO will recommend health/safety and protective measures appropriate to the emergency.

Other:

10.2 LOCAL AND SITE RESOURCES (including phone numbers)

Ambulance: 911

Hospital: Albany Memorial Hospital

Directions to Hospital (map attached at the end of this plan): 600 Northern Blvd., Albany, NY (518) 471-3221.

Poison Control: 1-(800)-222-1222

Police Department: 911

Fire Department: 911

Client Contact: Ian Bielby, NYSDEC

Site Contact: Prime Contractor – TBD by NYSDEC

On-Site Telephone Number: None

Cellular Telephone Number: (716) 359-1035 – Marcy Werth

Radios Available: N/A

Other:

10.3 E & E EMERGENCY CONTACTS

E & E Emergency Response Center (24 Hours):	716/684-8940
Corporate Health and Safety Director, Dr. Paul Jonmaire:	716/684-8060 (office) 716/655-1260 (home)
Regional Office Contact:	_____ (office) _____ (home)
Other:	_____ (office)

a. E & E Emergency Response Center: 716/684-8940

b. Corporate Health and Safety Director, Dr. Paul Jonmaire: 716/684-8060 (office)
716/655-1260 (home)

c. Corporate Safety Officer, Tom Siener 716/684-8060 (office)
716/662-4740 (home)

10.4 OTHER EMERGENCY RESPONSE PROCEDURES

On-Site Evacuation Signal/Alarm (must be audible and perceptible above ambient noise and light levels): Car horn.

On-Site Assembly Area: Dirt road east property boundary.

Emergency Egress Route to Get Off Site: Follow dirt road to east side of property.

Off-Site Assembly Area: Watervliet Road in front of property.

Preferred Means of Reporting Emergencies: Use of cellular phones.

Site Security and Control: In an emergency situation, personnel will attempt to secure the affected area and control site access. Emergency procedures will be coordinated with other organizations on site.

Emergency Decontamination Procedures: Remove all PPE. If boots are soiled, leave them on site. Use alcohol wipes to wash down face and hands.

PPE: Personnel will do appropriate PPE when responding to an emergency situation. The SSO and Section 7 of this plan will provide guidance regarding appropriate PPE.

Emergency Equipment: Appropriate emergency equipment is listed in Attachment 1. Adequate supplies of this equipment shall be maintained in the support area or other approved work location.

Incident Reporting Procedures: All E &E incidents will be reported to the Corporate Headquarters in Buffalo, NY. Report filed per reporting guidelines of E & E.

ATTACHMENT 1 EQUIPMENT/SUPPLIES CHECKLIST			
INSTRUMENTATION	No.	**EMERGENCY EQUIPMENT**	No.
OVA/PID	1	First aid kit	1
Thermal desorber		Stretcher	
O_2/explosimeter w/cal. kit	1	Portable eye wash	1
Photovac tip		Blood pressure monitor	
HNu (probe: _____eV)		Fire blanket	
Magnetometer		Fire extinguisher	1
Pipe locator		Thermometer (medical)	
Weather station		Spill kit	
Draeger tube kit (tubes)			
Brunton compass			
Real-time cyanide monitor			
Real-time H_2S monitor			
Heat stress monitor			
Noise equipment		**DECONTAMINATION EQUIPMENT**	
Personal sampling pumps and supplies		Wash tubs	
MiniRam dust monitor	1	Buckets	X
Mercury monitor		Scrub brushes	X
Spare batteries (type)		Pressurized sprayer	
		Spray bottle	X
		Detergent (type: _alconox or liquinox____)	X
RADIATION EQUIPMENT/SUPPLIES		Solvent (type: _____)	
Documentation forms		Plastic sheeting	X
Portable ratemeter		Tarps and poles	
Scaler/ratemeter		Trash bags	X
1" NaI gamma probe		Trash cans	
2" NaI gamma probe		Masking tape	
ZnS alpha probe		Duct tape	X
GM pancake probe		Paper towels	X
Tungsten-shielded GM probe		Face mask	
Micro R meter		Face mask sanitizer	
Ion chamber		Step ladders	
Alert monitor		Distilled water	X
Pocket dosimeter		Deionized water	X

ATTACHMENT 1 EQUIPMENT/SUPPLIES CHECKLIST			
Dosimeter charger			
Radiation warning tape			
Radiation decon supplies			
Spare batteries (type: _____)			
SAMPLING EQUIPMENT		**MISCELLANEOUS (Cont.)**	
8-oz. bottles	X	Gatorade or equivalent	X
Half-gallon bottles		Tables	
VOA bottles		Chairs	
String	X	Weather radio	
Hand bailers	X	Two-way radios	
Thieving rods with bulbs		Binoculars	
Spoons	X	Megaphone	
Knives		Cooling vest	
Filter paper			
Bottle labels	X		
		SHIPPING EQUIPMENT	
		Coolers	X
MISCELLANEOUS		Paint cans with lids, 7 clips each	
Pump		Vermiculite	
Surveyor's tape		Shipping labels	X
100' Fiberglass tape		DOT labels:	
300' Nylon rope		"Up"	
Nylon string	X	"Danger"	
Surveying flags	X	"Inside Container Complies ..."	
Camera	X	Hazard Group	
Film		Strapping tape	X
Bung wrench		Baggies	X
Soil auger	X	Custody seals	X
Pick		Chain-of-custody forms	X
Shovel		Federal Express forms	X
Catalytic heater		Clear packing tape	X

ATTACHMENT 1 EQUIPMENT/SUPPLIES CHECKLIST			
Propane gas		Permanent markers	X
Banner tape			
Surveying meter stick			
Chaining pins and ring			
Logbooks (__X___ large, _____ small)	X		
Required MSDSs	X		
Intrinsically safe flashlight	X		
Potable water	X		

Attachment B

Site-Specific Quality Assurance Project Plan (QAPP) Interim Remedial Measures at the Former Adirondack Steel Site Site No. 4-01-039 Colonie, New York

September 2008

Prepared for:

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
625 Broadway
Albany, New York 12233

NYSDEC Project Manager	Date	EEEPC Project Manager	Date
NYSDEC QA Officer	Date	EEEPC QA Officer	Date

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Attachments

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List of Acronyms

ADR	Automatic Data Review
ASP	Analytical Services Protocol
CLP	Contract Laboratory Program
DER	Division of Environmental Remediation
DUSR	Data Usability Summary Report
EDD	electronic data deliverable
EEEPC	Ecology and Environment Engineering, P.C.
FSP	Field Sampling Plan
MS/MSD	Matrix Spike/Matrix Spike Duplicate
MSB	Method Spike Blank
NYSDEC	New York State Department of Environmental Conservation
OTMI	Old Troy Municipal Incinerator
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
SC	site characterization
SOW	Scope of Work
TCL	Target Compound List
TCLP	Toxicity Characteristic Leaching Procedure
VOC	Volatile Organic Compound

1

Project Management

QAPP
Quality Assurance Project Plan

EEEPC
Ecology and Environment Engineering, P.C.

NYSDEC
New York State Department of Environmental Conservation

DER
Division of Environmental Remediation

IRM
Interim Remedial Measures

This site-specific Quality Assurance Project Plan (QAPP) has been prepared by Ecology and Environment Engineering, P.C. (EEEPC) for the New York State Department of Environmental Conservation (NYSDEC), Division of Environmental Remediation (DER), under Work Assignment Number D004435-10. The site-specific QAPP is for interim remedial measures (IRM) services at the Former Adirondack Steel site (Site No. 4-01-039), located at 191, 225, 227, and 229 Watervliet Shaker Road, Colonie, Albany County, New York. EEEPC personnel will implement this site-specific QAPP for all activities conducted for the Former Adirondack Steel site.

This QAPP has been prepared as part of the work plan for the project and is an addendum to the master NYSDEC QAPP (E & E 2004). This addendum documents changes, modifications, or new procedures and practices to be used that are applicable to activities anticipated under this investigation. This site-specific QAPP is formatted to address the four major sections listed in the master Quality Assurance Program Plan: Project Management, Data Generation and Acquisition, Assessment and Oversight, and Data Validation and Usability. The information provided only covers deviations or new procedures for implementing the project. Any subsection that is not changed is not included in this QAPP. General tables with site-specific information have been added to this QAPP for easier review of site-specific requirements.

1.1 Project Organization

The project team for this site is listed below on Table B1-1.

1.2 Problem Definition/Background

The problem and background for this work assignment are defined in Section 1 of the current work plan and in Section 1 of the work plan completed in September 2005.

1.3 Project Description

SOW
scope of work

QA/QC
quality assurance/quality control

The specific scope of work (SOW) for the current activities is defined in the work plan, Section 2, and includes the following areas:

- Problem(s) to be resolved;
- Direct and indirect measurements required;
- Applicable technical or regulatory quality assurance/quality control (QA/QC) standards or criteria;
- Any special resources (e.g., personnel or equipment) needed for the site;
- Scope and schedule of the project deliverables; and
- Any special assessment or oversight procedures necessary to verify site-specific quality objectives are met.

Table B1-1 Project Organization

Key Team Member	Contact Name and Telephone	
NYSDEC Project Manager	Ian Bielby	518-402-9813
EEEPC Program Manager	David Albers	716-684-8060
EEEPC QA Officer	Marcia Meredith Galloway	716-684-8060
EEEPC Project Manager	Marcy Werth	716-684-8060
EEEPC Field Team Leader	Marcy Werth	716-684-8060
Laboratory	TBD – subcontracted by NYSDEC	

1.4 Quality Objectives and Criteria

General quality objectives and performance criteria for NYSDEC projects are applicable to this project. These general objectives can be found in the master NYSDEC Quality Assurance Program Plan.

1.5 Special Training/Certification

There are no site-specific training requirements for this work assignment.

1.6 Documents and Records

Sample identification for the bottom excavation samples will contain the prefix “BOT”, followed by the name of the previous sample collected in the area “e.g. SB23” and the depth at which the new sample is collected. For example, the new excavation sample collected at SB23 at five feet below ground surface would be called, BOT-SB23-5’. Sample identification for the sidewall exca-

vation samples will contain the prefix "SIDE" followed by the area number "e.g. A1" and the depth at which the new sample is collected. For example, a sidewall sample collected from A3 at two feet bgs would be called, SIDE-A3-2'.

The following matrix codes will be used:

- SS = Surface soil and
- SB = Subsurface soil.

The laboratory will provide a hard-copy deliverable that contains the information specified for NYSDEC Analytical Services Protocol (ASP) Category B. Electronic data must be provided in accordance the standard laboratory electronic data deliverable (EDD) format for the Automatic Data Review (ADR) program. EEEPC will use only the electronic data for evaluation and reporting. The laboratory must certify that the electronic data match the hard copy reported for each package.

ASP
Analytical Service Protocol

EDD
electronic data deliverable

ADR
Automatic Data Review

DUSR
Data Usability Summary Report

The following records and reports will be produced as part of this project:

- Work Plan;
- Site-specific Health and Safety Plan;
- Site-specific QAPP;
- Field Logbook;
- Chain-of-custody Form;
- Laboratory Data Package – Category B;
- Data Usability Summary Report (DUSR);
- Draft Report; and
- Final Report.

2 Data Generation and Acquisition

The samples and analytical methods planned for this site are provided on Tables 1 and 2 of the work plan. Table B2-1 lists all analyses that may be performed for this project. Laboratory target compounds, reporting limits and current control limits have been entered into the ADR program. Printouts of these limits are provided in Attachment A for the soil and water methods listed on Table B2-1. All additional QC information pertaining to the methods can be found in NYSDEC's ASP (June 2000).

Table B2-1 Required Analytical Methods for the Former Adirondack Steel Site

Method Number	Description
SW 8082	Target Compound List Polychlorinated Biphenyls (TCL PCBs)
Waste Analyses	
SW 8082 8260C 8270D 6010B/7471	Target Compound List Polychlorinated Biphenyls (TCL PCBs), Target Compound List Volatile Organic Compounds (TCL VOCs), Target Compound List Semivolatile Organic Compounds (TCL SVOCs) and Target Analyte List (TAL) Metals.

The collection of field QC samples follows the master Quality Assurance Program Plan and is summarized on Table B2-2.

Table B2-2 Field Quality Control Guidelines, NYSDEC Projects

QC Sample	Description
Field Duplicate	One per matrix per 20 samples for each analysis.
Field Equipment Blank	One per equipment set per day for each analysis. Only equipment sets that are subject to decontamination require equipment blanks. Dedicated or disposal equipment does not require equipment blanks.

The laboratory QC sample requirements follow the master Quality Assurance Program Plan and are summarized on Table B2-3.

Table B2-3 Laboratory Quality Control Sample Guidelines, NYSDEC Projects

QC Sample	Description
MB	One per matrix per preparation batch for each analysis.
MSB	One per matrix per preparation batch for each analysis. The MSB must contain all target analytes of concern at the site or as specified by the CLP method.
Surrogate Spikes	All samples analyzed for organic methods.
MS/MSD	One per matrix per SDG for each analysis. The spike solution must contain a broad range of the analytes of concern at the site or as specified by the CLP method. The overall frequency of MS/MSD on project samples must be at least one set per 20 samples.
MS/MD	One per matrix per SDG for TAL metals and general chemistry methods. The spike solution must contain a broad range of analytes of concern at the site or as specified by the CLP method. The overall frequency of MS/MD on the project samples must be at least one set per 20 samples.

Key:

CLP = Contract Laboratory Program.
MB = Method Blank.
MS/MD = Matrix Spike/Matrix Duplicate.
MS/MSD = Matrix Spike/Matrix Spike Duplicate.
MSB = Matrix Spike Blank.
SDG = Sample Delivery Group.
TAL = Target Analyze List

3 Assessment and Oversight

EEEPC's assessment and oversight procedures for the project activities are the same as the master Quality Assurance Program Plan. There are no additional procedures to meet the quality objectives for these work assignment activities.

3.1 Assessment and Response Actions

Planned assessment activities for these work assignment activities are as follows:

Field Audits

No field audits are planned.

Field Inspections

The EEEPC Project Manager will conduct at least one site visit for the purpose of inspecting the activities of all personnel including subcontractors.

Laboratory Audits

No project-specific audits are planned.

3.2 Reports to Management

The reports to management are specified the same as in the master Quality Assurance Program Plan. No additional reports are required for this project.

4 Data Validation and Usability

For these work assignment activities, EEEPC will implement the general procedures for data validation and usability described in the master Quality Assurance Program Plan.

4.1 Data Review, Validation, and Verification Requirements

There are no additional data review criteria for this project. The laboratory is responsible for reviewing data in accordance with their approved QA manual. These procedures are approved as part of the New York State certification process.

EEEPC will process all electronic data through the ADR. The A1 and A3 files as well as the Sample Receipt file are required. Specifications for EDD are provided in Attachment B. Sample analysis results for the site characterization will undergo electronic data processing and review for usability by EEEPC. EEEPC will determine any deviations from the Quality Control Program Plan limits and assign qualifiers based on guidelines identified in the master Quality Control Program Plan. Data for IDW soil and water disposal will not be reviewed. The data reviews both hard copy and electronic will follow the NYSDEC Guidance for the Development of DUSRs, June 1999.

4.2 Verification and Validation Methods

Data validation requirements are the same as specified in the master Quality Assurance Program Plan.

4.3 Reconciliation with User Requirements

The data assessment procedures listed in the master Quality Assurance Program Plan are applicable to this project. There are no additional data assessment procedures.

A

Method Target Compounds, Reporting Limits, and Quality Control Limits

Project Reporting Limits and QC Criteria

Project NYSDEC Adirondack Steel

Method: 2340 **AQ** Hardness as CaCO3

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
Hardness	HARD	4	PQL	mg/L									20

Method: 415.1_LK **SO** Total Organic Carbon by Lloyd Kahn

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
Total Organic Carbon	ADR-04-005	100	PQL	mg/Kg					50.00	150.00	50.00	Percent	20

Method: 6010C **AQ** Metals by Inductively Coupled Plasma-Atomic Emission

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
ALUMINUM	7429-90-5	200	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
ANTIMONY	7440-36-0	20	PQL	ug/L	80.00	120.00	25.00	Percent	79.90	121.00	25.00	Percent	20
ARSENIC	7440-38-2	20	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
BARIUM	7440-39-3	200	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
BERYLLIUM	7440-41-7	5	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
CADMIUM	7440-43-9	5	PQL	ug/L	80.00	120.00	25.00	Percent	88.10	120.00	25.00	Percent	20
CALCIUM	7440-70-2	800	PQL	ug/L					80.00	120.00	25.00	Percent	20
CHROMIUM	7440-47-3	20	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
COBALT	7440-48-4	50	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
COPPER	7440-50-8	30	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
IRON	7439-89-6	200	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
LEAD	7439-92-1	10	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
MAGNESIUM	7439-95-4	500	PQL	ug/L					80.00	120.00	25.00	Percent	20
MANGANESE	7439-96-5	50	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20

NICKEL	7440-02-0	50	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
POTASSIUM	7440-09-7	1000	PQL	ug/L					80.00	120.00	25.00	Percent	20
SELENIUM	7782-49-2	30	PQL	ug/L	80.00	120.00	25.00	Percent	83.60	118.00	25.00	Percent	20
SILVER	7440-22-4	30	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
SODIUM	7440-23-5	1000	PQL	ug/L					80.00	120.00	25.00	Percent	20
THALLIUM	7440-28-0	20	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
VANADIUM	7440-62-2	50	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
ZINC	7440-66-6	50	PQL	ug/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20

Method: 6010C - TCLP **SO** TCLP Metals by Inductively Coupled Plasma-Atomic

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
ARSENIC	7440-38-2	0.02	PQL	mg/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
BARIUM	7440-39-3	0.2	PQL	mg/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
CADMIUM	7440-43-9	0.005	PQL	mg/L	80.00	120.00	25.00	Percent	88.10	120.00	25.00	Percent	20
CHROMIUM	7440-47-3	0.02	PQL	mg/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
LEAD	7439-92-1	0.01	PQL	mg/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20
SELENIUM	7782-49-2	0.03	PQL	mg/L	80.00	120.00	25.00	Percent	83.60	118.00	25.00	Percent	20
SILVER	7440-22-4	0.03	PQL	mg/L	80.00	120.00	25.00	Percent	80.00	120.00	25.00	Percent	20

Method: 7470A **AQ** Mercury in Liquid Waste by Manual Cold Vapor Technique

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
MERCURY	7439-97-6	0.20	PQL	ug/L	80.00	120.00	25.00	Percent	67.30	120.00	20.00	Percent	20

Method: 7471A-TCLP **SO** 7471A-TCLP

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
MERCURY	7439-97-6	0.0002	PQL	mg/L	80.00	120.00	25.00	Percent	67.30	120.00	20.00	Percent	20

Method: 8081A **AQ** Organochlorine Pesticides by GC using ECD

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
4,4'-DDD	72-54-8	0.1	PQL	ug/L	42.00	126.00	40.00	Percent	42.00	126.00	40.00	Percent	40
4,4'-DDE	72-55-9	0.1	PQL	ug/L	52.00	144.00	40.00	Percent	52.00	144.00	40.00	Percent	40
4,4'-DDT	50-29-3	0.1	PQL	ug/L	47.00	149.00	40.00	Percent	47.00	149.00	40.00	Percent	40
ALDRIN	309-00-2	0.05	PQL	ug/L	47.00	132.00	40.00	Percent	47.00	132.00	40.00	Percent	40
ALPHA-BHC	319-84-6	0.05	PQL	ug/L	52.00	134.00	40.00	Percent	52.00	134.00	40.00	Percent	40
ALPHA-CHLORDANE	5103-71-9	0.05	PQL	ug/L	64.00	122.00	40.00	Percent	64.00	122.00	40.00	Percent	40
BETA-BHC	319-85-7	0.05	PQL	ug/L	42.00	160.00	40.00	Percent	42.00	160.00	40.00	Percent	40
DELTA-BHC	319-86-8	0.05	PQL	ug/L	50.00	137.00	40.00	Percent	50.00	137.00	40.00	Percent	40
DIELDRIN	60-57-1	0.1	PQL	ug/L	67.00	130.00	40.00	Percent	67.00	130.00	40.00	Percent	40
ENDOSULFAN I	959-98-8	0.05	PQL	ug/L	0.00	136.00	40.00	Percent	0.00	136.00	40.00	Percent	40
ENDOSULFAN II	33213-65-9	0.1	PQL	ug/L	6.00	166.00	40.00	Percent	6.00	166.00	40.00	Percent	40
ENDOSULFAN SULFATE	1031-07-8	0.1	PQL	ug/L	54.00	153.00	40.00	Percent	54.00	153.00	40.00	Percent	40
ENDRIN	72-20-8	0.1	PQL	ug/L	73.00	144.00	40.00	Percent	73.00	144.00	40.00	Percent	40
ENDRIN ALDEHYDE	7421-93-4	0.1	PQL	ug/L	54.00	146.00	40.00	Percent	54.00	146.00	40.00	Percent	40
ENDRIN KETONE	53494-70-5	0.1	PQL	ug/L	70.00	135.00	40.00	Percent	70.00	135.00	40.00	Percent	40
GAMMA-BHC	58-89-9	0.05	PQL	ug/L	61.00	126.00	40.00	Percent	61.00	126.00	40.00	Percent	40
GAMMA-CHLORDANE	5103-74-2	0.05	PQL	ug/L	60.00	127.00	40.00	Percent	60.00	127.00	40.00	Percent	40
HEPTACHLOR	76-44-8	0.05	PQL	ug/L	55.00	132.00	40.00	Percent	55.00	132.00	40.00	Percent	40
HEPTACHLOR EPOXIDE	1024-57-3	0.05	PQL	ug/L	65.00	125.00	40.00	Percent	65.00	125.00	40.00	Percent	40
METHOXYCHLOR	72-43-5	0.50	PQL	ug/L	54.00	142.00	40.00	Percent	54.00	142.00	40.00	Percent	40
TOXAPHENE	8001-35-2	5	PQL	ug/L									40

Surrogates

Method: 8081A AQ

Analyte Name	*Client Analyte ID*	*Surrogate Lower*	*Surrogate Upper*	*Surrogate Units*
DECACHLOROBIPHENYL	2051-24-3	54	130	Percent
TETRACHLORO-M-XYLENE	877-09-8	52	129	Percent

Method: 8081A-TCLP SO TCLP Pesticides by GC

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
CHLORDANE (TECHNICAL)	57-74-9	0.0025	PQL	mg/L									0
ENDRIN	72-20-8	0.0001	PQL	mg/L	73.00	144.00	40.00	Percent	73.00	144.00	40.00	Percent	20
GAMMA-BHC	58-89-9	0.00005	PQL	mg/L	61.00	126.00	40.00	Percent	61.00	126.00	40.00	Percent	20
HEPTACHLOR	76-44-8	0.00005	PQL	mg/L	55.00	132.00	40.00	Percent	55.00	132.00	40.00	Percent	20
HEPTACHLOR EPOXIDE	1024-57-3	0.00005	PQL	mg/L	65.00	125.00	40.00	Percent	65.00	125.00	40.00	Percent	20
METHOXYCHLOR	72-43-5	0.0005	PQL	mg/L	54.00	142.00	40.00	Percent	54.00	142.00	40.00	Percent	20
TOXAPHENE	8001-35-2	0.005	PQL	mg/L									0

Surrogates

Method: 8081A-TCLP SO

Analyte Name	*Client Analyte ID*	*Surrogate Lower*	*Surrogate Upper*	*Surrogate Units*
DECACHLOROBIPHENYL	2051-24-3	54	130	Percent
TETRACHLORO-M-XYLENE	877-09-8	52	129	Percent

Method: 8082 AQ Polychlorinated Biphenyls (PCBs) by GC using ECD

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
AROCLOR-1016	12674-11-2	1.0	PQL	ug/L	45.00	162.00	40.00	Percent	24.90	143.00	40.00	Percent	0
AROCLOR-1221	11104-28-2	1.0	PQL	ug/L									0
AROCLOR-1232	11141-16-5	1.0	PQL	ug/L									0

AROCLOR-1242	53469-21-9	1.0	PQL	ug/L									0
AROCLOR-1248	12672-29-6	1.0	PQL	ug/L									0
AROCLOR-1254	11097-69-1	1.0	PQL	ug/L									0
AROCLOR-1260	11096-82-5	1.0	PQL	ug/L	54.00	159.00	40.00	Percent	23.50	152.00	40.00	Percent	0

Method: 8082 **SO** Polychlorinated Biphenyls (PCBs) by GC using ECD

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
AROCLOR 1016	12674-11-2	33	PQL	ug/Kg	62.00	155.00	40.00	Percent	68.60	117.00	40.00	Percent	0
AROCLOR 1221	11104-28-2	33	PQL	ug/Kg									0
AROCLOR 1232	11141-16-5	33	PQL	ug/Kg									0
AROCLOR 1242	53469-21-9	33	PQL	ug/Kg									0
AROCLOR 1248	12672-29-6	33	PQL	ug/Kg									0
AROCLOR 1254	11097-69-1	33	PQL	ug/Kg									0
AROCLOR 1260	11096-82-5	33	PQL	ug/Kg	56.00	173.00	40.00	Percent	67.80	126.00	40.00	Percent	0

Method: 8082-TCLP **SO** TCLP PCBs by GC

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
AROCLOR 1016	12674-11-2	0.001	PQL	mg/L	45.00	162.00	40.00	Percent	24.90	143.00	40.00	Percent	0
AROCLOR 1221	11104-28-2	0.001	PQL	mg/L									0
AROCLOR 1232	11141-16-5	0.001	PQL	mg/L									0
AROCLOR 1242	53469-21-9	0.001	PQL	mg/L									0
AROCLOR 1248	12672-29-6	0.001	PQL	mg/L									0
AROCLOR 1254	11097-69-1	0.001	PQL	mg/L									0
AROCLOR 1260	11096-82-5	0.001	PQL	mg/L	54.00	159.00	40.00	Percent	23.50	152.00	40.00	Percent	0

Method: 8151A-TCLP **SO** TCLP Chlorinated Herbicides by GC

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
2,4-D	94-75-7	0.001	PQL	mg/L	15.00	150.00	50.00	Percent	15.00	150.00	50.00	Percent	20
SILVEX	93-72-1	0.0001	PQL	mg/L	15.00	150.00	50.00	Percent	15.00	150.00	50.00	Percent	20

Method: 8260B **AQ** Volatile Organic Compounds by GC/MS

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
1,1,1,2-TETRACHLOROETHANE	630-20-6	5	PQL	ug/L	84.00	121.00	40.00	Percent	84.00	121.00	40.00	Percent	20
1,1,1-TRICHLOROETHANE	71-55-6	5	PQL	ug/L	81.00	122.00	40.00	Percent	81.00	122.00	40.00	Percent	20
1,1,2,2-TETRACHLOROETHANE	79-34-5	5	PQL	ug/L	76.00	125.00	40.00	Percent	76.00	125.00	40.00	Percent	20
1,1,2-TRICHLOROETHANE	79-00-5	5	PQL	ug/L	44.00	159.00	40.00	Percent	44.00	159.00	40.00	Percent	20
1,1-DICHLOROETHANE	75-34-3	5	PQL	ug/L	83.00	116.00	40.00	Percent	83.00	116.00	40.00	Percent	20
1,1-DICHLOROETHENE	75-35-4	5	PQL	ug/L	67.00	121.00	40.00	Percent	67.00	121.00	40.00	Percent	20
1,2,3-TRICHLOROBENZENE	87-61-6	5	PQL	ug/L	64.00	118.00	40.00	Percent	64.00	118.00	40.00	Percent	20
1,2,3-TRICHLOROPROPANE	96-18-4	5	PQL	ug/L	57.00	140.00	40.00	Percent	57.00	140.00	40.00	Percent	20
1,2,4-TRICHLOROBENZENE	120-82-1	5	PQL	ug/L	67.00	114.00	40.00	Percent	67.00	114.00	40.00	Percent	20
1,2,4-TRIMETHYLBENZENE	95-63-6	5	PQL	ug/L	77.00	117.00	40.00	Percent	77.00	117.00	40.00	Percent	20
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	5	PQL	ug/L	71.00	126.00	40.00	Percent	71.00	126.00	40.00	Percent	20
1,2-DIBROMOETHANE	106-93-4	5	PQL	ug/L	80.00	124.00	40.00	Percent	80.00	124.00	40.00	Percent	20
1,2-DICHLOROETHANE	107-06-2	5	PQL	ug/L	83.00	123.00	40.00	Percent	83.00	123.00	40.00	Percent	20
1,2-DICHLOROPROPANE	78-87-5	5	PQL	ug/L	81.00	116.00	40.00	Percent	81.00	116.00	40.00	Percent	20
1,3-DICHLOROBENZENE	541-73-1	5	PQL	ug/L	80.00	116.00	40.00	Percent	80.00	116.00	40.00	Percent	20
1,3-DICHLOROPROPANE	142-28-9	5	PQL	ug/L	79.00	125.00	40.00	Percent	79.00	125.00	40.00	Percent	20
1,4-DICHLOROBENZENE	106-46-7	5	PQL	ug/L	80.00	114.00	40.00	Percent	80.00	114.00	40.00	Percent	20
2,2-DICHLOROPROPANE	594-20-7	5	PQL	ug/L	70.00	129.00	40.00	Percent	70.00	129.00	40.00	Percent	20
2-BUTANONE	78-93-3	5	PQL	ug/L	64.00	139.00	40.00	Percent	64.00	139.00	40.00	Percent	20
2-CHLOROETHYL VINYL ETHER	110-75-8	5	PQL	ug/L	0.00	169.00	40.00	Percent	0.00	169.00	40.00	Percent	20
2-CHLOROTOLUENE	95-49-8	5	PQL	ug/L	75.00	120.00	40.00	Percent	75.00	120.00	40.00	Percent	20
2-HEXANONE	591-78-6	5	PQL	ug/L	53.00	145.00	40.00	Percent	53.00	145.00	40.00	Percent	20

4-CHLOROTOLUENE	106-43-4	5	PQL	ug/L	78.00	116.00	40.00	Percent	78.00	116.00	40.00	Percent	20
4-METHYL-2-PENTANONE	108-10-1	5	PQL	ug/L	57.00	138.00	40.00	Percent	57.00	138.00	40.00	Percent	20
ACETONE	67-64-1	5	PQL	ug/L	38.00	161.00	40.00	Percent	38.00	161.00	40.00	Percent	20
ACROLEIN	107-02-8	25	PQL	ug/L	12.00	133.00	40.00	Percent	12.00	133.00	40.00	Percent	20
ACRYLONITRILE	107-13-1	25	PQL	ug/L	45.00	172.00	40.00	Percent	45.00	172.00	40.00	Percent	20
BENZENE	71-43-2	5	PQL	ug/L	81.00	120.00	40.00	Percent	81.00	120.00	40.00	Percent	20
BROMOBENZENE	108-86-1	5	PQL	ug/L	76.00	124.00	40.00	Percent	76.00	124.00	40.00	Percent	20
BROMOCHLOROMETHANE	74-97-5	5	PQL	ug/L	85.00	124.00	40.00	Percent	85.00	124.00	40.00	Percent	20
BROMODICHLOROMETHANE	75-27-4	5	PQL	ug/L	90.00	114.00	40.00	Percent	90.00	114.00	40.00	Percent	20
BROMOFORM	75-25-2	5	PQL	ug/L	77.00	130.00	40.00	Percent	77.00	130.00	40.00	Percent	20
BROMOMETHANE	74-83-9	5	PQL	ug/L	73.00	122.00	40.00	Percent	73.00	122.00	40.00	Percent	20
CARBON DISULFIDE	75-15-0	5	PQL	ug/L	53.00	137.00	40.00	Percent	53.00	137.00	40.00	Percent	20
CARBON TETRACHLORIDE	56-23-5	5	PQL	ug/L	79.00	125.00	40.00	Percent	79.00	125.00	40.00	Percent	20
CHLOROBENZENE	108-90-7	5	PQL	ug/L	82.00	118.00	40.00	Percent	82.00	118.00	40.00	Percent	20
CHLOROETHANE	75-00-3	5	PQL	ug/L	72.00	118.00	40.00	Percent	72.00	118.00	40.00	Percent	20
CHLOROFORM	67-66-3	5	PQL	ug/L	89.00	118.00	40.00	Percent	89.00	118.00	40.00	Percent	20
CHLOROMETHANE	74-87-3	5	PQL	ug/L	60.00	118.00	40.00	Percent	60.00	118.00	40.00	Percent	20
CIS-1,2-DICHLOROETHENE	156-59-2	5	PQL	ug/L	83.00	120.00	40.00	Percent	83.00	120.00	40.00	Percent	20
CIS-1,3-DICHLOROPROPENE	10061-01-5	5	PQL	ug/L	78.00	119.00	40.00	Percent	78.00	119.00	40.00	Percent	20
DIBROMOCHLOROMETHANE	124-48-1	5	PQL	ug/L	80.00	124.00	40.00	Percent	80.00	124.00	40.00	Percent	20
DIBROMOMETHANE	74-95-3	5	PQL	ug/L	86.00	124.00	40.00	Percent	86.00	124.00	40.00	Percent	20
DICHLORODIFLUOROMETHANE	75-71-8	5	PQL	ug/L	48.00	135.00	40.00	Percent	48.00	135.00	40.00	Percent	20
ETHYLBENZENE	100-41-4	5	PQL	ug/L	80.00	122.00	40.00	Percent	80.00	122.00	40.00	Percent	20
FREON 113	76-13-1	5	PQL	ug/L	70.00	130.00	40.00	Percent	70.00	130.00	40.00	Percent	20
HEXACHLOROBUTADIENE	87-68-3	5	PQL	ug/L	50.00	111.00	40.00	Percent	50.00	111.00	40.00	Percent	20
ISOPROPYLBENZENE	98-82-8	5	PQL	ug/L	58.00	148.00	40.00	Percent	58.00	148.00	40.00	Percent	20
M,P-XYLENES	1330-20-7	5	PQL	ug/L	70.00	130.00	40.00	Percent	70.00	130.00	40.00	Percent	20
METHYL TERT-BUTYL ETHER	1634-04-4	5	PQL	ug/L	75.00	123.00	40.00	Percent	75.00	123.00	40.00	Percent	20
METHYLENE CHLORIDE	75-09-2	5	PQL	ug/L	59.00	132.00	40.00	Percent	59.00	132.00	40.00	Percent	20
NAPHTHALENE	91-20-3	5	PQL	ug/L	58.00	133.00	40.00	Percent	58.00	133.00	40.00	Percent	20
N-BUTYLBENZENE	104-51-8	5	PQL	ug/L	58.00	121.00	40.00	Percent	58.00	121.00	40.00	Percent	20
N-PROPYLBENZENE	103-65-1	5	PQL	ug/L	72.00	119.00	40.00	Percent	72.00	119.00	40.00	Percent	20
O-XYLENE	95-47-6	5	PQL	ug/L	70.00	130.00	40.00	Percent	70.00	130.00	40.00	Percent	20

P-ISOPROPYLTOLUENE	99-87-6	5	PQL	ug/L	68.00	118.00	40.00	Percent	68.00	118.00	40.00	Percent	20
SEC-BUTYLBENZENE	135-98-8	5	PQL	ug/L	67.00	117.00	40.00	Percent	67.00	117.00	40.00	Percent	20
STYRENE	100-42-5	5	PQL	ug/L	77.00	128.00	40.00	Percent	77.00	128.00	40.00	Percent	20
TERT-BUTYL ALCOHOL	75-65-0	5	PQL	ug/L	70.00	130.00	40.00	Percent	70.00	130.00	40.00	Percent	20
TERT-BUTYLBENZENE	98-06-6	5	PQL	ug/L	71.00	115.00	40.00	Percent	71.00	115.00	40.00	Percent	20
TETRACHLOROETHENE	127-18-4	5	PQL	ug/L	73.00	121.00	40.00	Percent	73.00	121.00	40.00	Percent	20
TOLUENE	108-88-3	5	PQL	ug/L	81.00	121.00	40.00	Percent	81.00	121.00	40.00	Percent	20
TRANS-1,2-DICHLOROETHENE	156-60-5	5	PQL	ug/L	71.00	124.00	40.00	Percent	71.00	124.00	40.00	Percent	20
TRANS-1,3-DICHLOROPROPENE	10061-02-6	5	PQL	ug/L	85.00	118.00	40.00	Percent	85.00	118.00	40.00	Percent	20
TRICHLOROETHENE	79-01-6	5	PQL	ug/L	77.00	121.00	40.00	Percent	77.00	121.00	40.00	Percent	20
TRICHLOROFLUOROMETHANE	75-69-4	5	PQL	ug/L	68.00	129.00	40.00	Percent	68.00	129.00	40.00	Percent	20
VINYL ACETATE	108-05-4	5	PQL	ug/L	44.00	160.00	40.00	Percent	44.00	160.00	40.00	Percent	20
VINYL CHLORIDE	75-01-4	5	PQL	ug/L	65.00	113.00	40.00	Percent	65.00	113.00	40.00	Percent	20

Surrogates

Method: 8260B AQ

Analyte Name	*Client Analyte ID*	*Surrogate Lower*	*Surrogate Upper*	*Surrogate Units*
1,2-DICHLOROETHANE-D4	17060-07-0	62	124	Percent
4-BROMOFLUOROBENZENE (SU	460-00-4	74	126	Percent
DIBROMOFLUOROMETHANE	1868-53-7	78	117	Percent
TOLUENE-D8	2037-26-5	81	116	Percent

Method: 8260B-TCLP SO TCLP Volatile Organic Compounds by GC/MS

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
1,1-DICHLOROETHENE	75-35-4	0.005	PQL	mg/L	67.00	121.00	40.00	Percent	67.00	121.00	40.00	Percent	0
1,2-DICHLOROETHANE	107-06-2	0.005	PQL	mg/L	83.00	123.00	40.00	Percent	83.00	123.00	40.00	Percent	0
2-BUTANONE	78-93-3	0.005	PQL	mg/L	64.00	139.00	40.00	Percent	64.00	139.00	40.00	Percent	0
BENZENE	71-43-2	0.005	PQL	mg/L	81.00	120.00	40.00	Percent	81.00	120.00	40.00	Percent	0
CARBON TETRACHLORIDE	56-23-5	0.005	PQL	mg/L	79.00	125.00	40.00	Percent	79.00	125.00	40.00	Percent	0
CHLOROBENZENE	108-90-7	0.005	PQL	mg/L	82.00	118.00	40.00	Percent	82.00	118.00	40.00	Percent	0
CHLOROFORM	67-66-3	0.005	PQL	mg/L	89.00	118.00	40.00	Percent	89.00	118.00	40.00	Percent	0

TETRACHLOROETHENE	127-18-4	0.005	PQL	mg/L	73.00	121.00	40.00	Percent	73.00	121.00	40.00	Percent	0
TRICHLOROETHENE	79-01-6	0.005	PQL	mg/L	77.00	121.00	40.00	Percent	77.00	121.00	40.00	Percent	0
VINYL CHLORIDE	75-01-4	0.005	PQL	mg/L	65.00	113.00	40.00	Percent	65.00	113.00	40.00	Percent	0

Surrogates

Method: 8260B-TCLP SO

Analyte Name	*Client Analyte ID*	*Surrogate Lower*	*Surrogate Upper*	*Surrogate Units*
1,2-DICHLOROETHANE-D4	17060-07-0	62	124	Percent
4-BROMOFLUOROBENZENE (SU	460-00-4	74	126	Percent
TOLUENE-D8	2037-26-5	81	116	Percent

Method: 8270C AQ Semi-Volatile Organic Compounds by GC/MS

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
1,2,4-TRICHLOROBENZENE	120-82-1	10	PQL	ug/L	33.00	108.00	40.00	Percent	33.00	108.00	40.00	Percent	20
1,2-DICHLOROBENZENE	95-50-1	10	PQL	ug/L	29.00	107.00	40.00	Percent	29.00	107.00	40.00	Percent	20
1,3-DICHLOROBENZENE	541-73-1	10	PQL	ug/L	28.00	103.00	40.00	Percent	28.00	103.00	40.00	Percent	20
1,4-DICHLOROBENZENE	106-46-7	10	PQL	ug/L	28.00	104.00	40.00	Percent	28.00	104.00	40.00	Percent	20
2,4,5-TRICHLOROPHENOL	95-95-4	20	PQL	ug/L	32.00	131.00	40.00	Percent	32.00	131.00	40.00	Percent	20
2,4,6-TRICHLOROPHENOL	88-06-2	10	PQL	ug/L	34.00	127.00	40.00	Percent	34.00	127.00	40.00	Percent	20
2,4-DICHLOROPHENOL	120-83-2	10	PQL	ug/L	31.00	122.00	40.00	Percent	31.00	122.00	40.00	Percent	20
2,4-DIMETHYLPHENOL	105-67-9	10	PQL	ug/L	14.00	109.00	40.00	Percent	14.00	109.00	40.00	Percent	20
2,4-DINITROPHENOL	51-28-5	20	PQL	ug/L	0.00	144.00	40.00	Percent	0.00	144.00	40.00	Percent	20
2,4-DINITROTOLUENE	121-14-2	10	PQL	ug/L	52.00	126.00	40.00	Percent	52.00	126.00	40.00	Percent	20
2,6-DINITROTOLUENE	606-20-2	10	PQL	ug/L	52.00	122.00	40.00	Percent	52.00	122.00	40.00	Percent	20
2-CHLORONAPHTHALENE	91-58-7	10	PQL	ug/L	47.00	116.00	40.00	Percent	47.00	116.00	40.00	Percent	20
2-CHLOROPHENOL	95-57-8	10	PQL	ug/L	22.00	117.00	40.00	Percent	22.00	117.00	40.00	Percent	20
2-METHYL-4,6-DINITROPHENOL	534-52-1	20	PQL	ug/L	3.00	151.00	40.00	Percent	3.00	151.00	40.00	Percent	20
2-METHYLNAPHTHALENE	91-57-6	10	PQL	ug/L	43.00	113.00	40.00	Percent	43.00	113.00	40.00	Percent	20
2-METHYLPHENOL	95-48-7	10	PQL	ug/L	40.00	104.00	40.00	Percent	40.00	104.00	40.00	Percent	20
2-NITROANILINE	88-74-4	20	PQL	ug/L	51.00	120.00	40.00	Percent	51.00	120.00	40.00	Percent	20
2-NITROPHENOL	88-75-5	10	PQL	ug/L	29.00	122.00	40.00	Percent	29.00	122.00	40.00	Percent	20

3,3'-DICHLOROBENZIDINE	91-94-1	10	PQL	ug/L	41.00	117.00	40.00	Percent	41.00	117.00	40.00	Percent	20
3-NITROANILINE	99-09-2	20	PQL	ug/L	47.00	115.00	40.00	Percent	47.00	115.00	40.00	Percent	20
4-BROMOPHENYL PHENYL ETHER	101-55-3	10	PQL	ug/L	51.00	124.00	40.00	Percent	51.00	124.00	40.00	Percent	20
4-CHLORO-3-METHYLPHENOL	59-50-7	10	PQL	ug/L	48.00	117.00	40.00	Percent	48.00	117.00	40.00	Percent	20
4-CHLOROANILINE	106-47-8	10	PQL	ug/L	0.00	152.00	40.00	Percent	0.00	152.00	40.00	Percent	20
4-CHLOROPHENYL PHENYL ETHER	7005-72-3	10	PQL	ug/L	50.00	124.00	40.00	Percent	50.00	124.00	40.00	Percent	20
4-METHYLPHENOL	106-44-5	10	PQL	ug/L	35.00	106.00	40.00	Percent	35.00	106.00	40.00	Percent	20
4-NITROANILINE	100-01-6	20	PQL	ug/L	47.00	117.00	40.00	Percent	47.00	117.00	40.00	Percent	20
4-NITROPHENOL	100-02-7	20	PQL	ug/L	0.00	160.00	40.00	Percent	0.00	160.00	40.00	Percent	20
ACENAPHTHENE	83-32-9	10	PQL	ug/L	50.00	121.00	40.00	Percent	50.00	121.00	40.00	Percent	20
ACENAPHTHYLENE	208-96-8	10	PQL	ug/L	50.00	119.00	40.00	Percent	50.00	119.00	40.00	Percent	20
ANTHRACENE	120-12-7	10	PQL	ug/L	52.00	127.00	40.00	Percent	52.00	127.00	40.00	Percent	20
Azobenzene	103-33-3	10	PQL	ug/L			40.00	Percent			40.00	Percent	20
BENZO(A)ANTHRACENE	56-55-3	10	PQL	ug/L	56.00	124.00	40.00	Percent	56.00	124.00	40.00	Percent	20
BENZO(A)PYRENE	50-32-8	10	PQL	ug/L	61.00	121.00	40.00	Percent	61.00	121.00	40.00	Percent	20
BENZO(B)FLUORANTHENE	205-99-2	10	PQL	ug/L	58.00	126.00	40.00	Percent	58.00	126.00	40.00	Percent	20
BENZO(G,H,I)PERYLENE	191-24-2	10	PQL	ug/L	57.00	124.00	40.00	Percent	57.00	124.00	40.00	Percent	20
BENZO(K)FLUORANTHENE	207-08-9	10	PQL	ug/L	60.00	124.00	40.00	Percent	60.00	124.00	40.00	Percent	20
BENZOIC ACID	65-85-0	20	PQL	ug/L									20
BENZYL ALCOHOL	100-51-6	10	PQL	ug/L									20
BIS(2-CHLOROETHOXY)METHANE	111-91-1	10	PQL	ug/L	49.00	112.00	40.00	Percent	49.00	112.00	40.00	Percent	20
BIS(2-CHLOROETHYL) ETHER	111-44-4	10	PQL	ug/L	46.00	109.00	40.00	Percent	46.00	109.00	40.00	Percent	20
BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	10	PQL	ug/L	10.00	134.00	40.00	Percent	10.00	134.00	40.00	Percent	20
BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	10	PQL	ug/L	56.00	127.00	40.00	Percent	56.00	127.00	40.00	Percent	20
BUTYLBENZYL PHTHALATE	85-68-7	10	PQL	ug/L	54.00	128.00	40.00	Percent	54.00	128.00	40.00	Percent	20
CHRYSENE	218-01-9	10	PQL	ug/L	53.00	123.00	40.00	Percent	53.00	123.00	40.00	Percent	20
DIBENZ(A,H)ANTHRACENE	53-70-3	10	PQL	ug/L	60.00	122.00	40.00	Percent	60.00	122.00	40.00	Percent	20
DIBENZOFURAN	132-64-9	10	PQL	ug/L	51.00	122.00	40.00	Percent	51.00	122.00	40.00	Percent	20
DIETHYL PHTHALATE	84-66-2	10	PQL	ug/L	53.00	126.00	40.00	Percent	53.00	126.00	40.00	Percent	20
DIMETHYL PHTHALATE	131-11-3	10	PQL	ug/L	53.00	124.00	40.00	Percent	53.00	124.00	40.00	Percent	20
DI-N-BUTYL PHTHALATE	84-74-2	10	PQL	ug/L	56.00	132.00	40.00	Percent	56.00	132.00	40.00	Percent	20
DI-N-OCTYL PHTHALATE	117-84-0	10	PQL	ug/L	59.00	138.00	40.00	Percent	59.00	138.00	40.00	Percent	20
FLUORANTHENE	206-44-0	10	PQL	ug/L	53.00	130.00	40.00	Percent	53.00	130.00	40.00	Percent	20

FLUORENE	86-73-7	10	PQL	ug/L	52.00	125.00	40.00	Percent	52.00	125.00	40.00	Percent	20
HEXACHLOROBENZENE	118-74-1	10	PQL	ug/L	52.00	124.00	40.00	Percent	52.00	124.00	40.00	Percent	20
HEXACHLOROBUTADIENE	87-68-3	10	PQL	ug/L	28.00	109.00	40.00	Percent	28.00	109.00	40.00	Percent	20
HEXACHLOROCYCLOPENTADIENE	77-47-4	10	PQL	ug/L	34.00	103.00	40.00	Percent	34.00	103.00	40.00	Percent	20
HEXACHLOROETHANE	67-72-1	10	PQL	ug/L	24.00	104.00	40.00	Percent	24.00	104.00	40.00	Percent	20
INDENO(1,2,3-CD)PYRENE	193-39-5	10	PQL	ug/L	23.00	152.00	40.00	Percent	23.00	152.00	40.00	Percent	20
ISOPHORONE	78-59-1	10	PQL	ug/L	48.00	118.00	40.00	Percent	48.00	118.00	40.00	Percent	20
NAPHTHALENE	91-20-3	10	PQL	ug/L	38.00	117.00	40.00	Percent	38.00	117.00	40.00	Percent	20
NITROBENZENE	98-95-3	10	PQL	ug/L	47.00	112.00	40.00	Percent	47.00	112.00	40.00	Percent	20
N-NITROSO-DI-N-PROPYLAMINE	621-64-7	10	PQL	ug/L	44.00	122.00	40.00	Percent	44.00	122.00	40.00	Percent	20
N-NITROSODIPHENYLAMINE	86-30-6	10	PQL	ug/L	48.00	121.00	40.00	Percent	48.00	121.00	40.00	Percent	20
PENTACHLOROPHENOL	87-86-5	20	PQL	ug/L	5.00	125.00	40.00	Percent	5.00	125.00	40.00	Percent	20
PHENANTHRENE	85-01-8	10	PQL	ug/L	52.00	128.00	40.00	Percent	52.00	128.00	40.00	Percent	20
PHENOL	108-95-2	10	PQL	ug/L	0.00	127.00	40.00	Percent	0.00	127.00	40.00	Percent	20
PYRENE	129-00-0	10	PQL	ug/L	53.00	131.00	40.00	Percent	53.00	131.00	40.00	Percent	20

Surrogates

Method: 8270C AQ

Analyte Name	*Client Analyte ID*	*Surrogate Lower*	*Surrogate Upper*	*Surrogate Units*
2,4,6-TRIBROMOPHENOL	118-79-6	37	122	Percent
2-FLUORO-1,1'-BIPHENYL	321-60-8	38	120	Percent
2-FLUOROPHENOL	367-12-4	1	103	Percent
NITROBENZENE-D5	20810-28-0	48	106	Percent
PHENOL-D5	4165-62-2	0	120	Percent
TERPHENYL-D14	98904-43-9	0	147	Percent

Method: 8270C-TCLP SO TCLP Semi-Volatile Organic Compounds by GC/MS

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
1,4-DICHLOROBENZENE	106-46-7	0.01	PQL	mg/L	28.00	104.00	40.00	Percent	28.00	104.00	40.00	Percent	20
2,4,5-TRICHLOROPHENOL	95-95-4	0.02	PQL	mg/L	32.00	131.00	40.00	Percent	32.00	131.00	40.00	Percent	20
2,4,6-TRICHLOROPHENOL	88-06-2	0.01	PQL	mg/L	34.00	127.00	40.00	Percent	34.00	127.00	40.00	Percent	20

2,4-DINITROTOLUENE	121-14-2	0.01	PQL	mg/L	52.00	126.00	40.00	Percent	52.00	126.00	40.00	Percent	20
2-METHYLPHENOL	95-48-7	0.01	PQL	mg/L	40.00	104.00	40.00	Percent	40.00	104.00	40.00	Percent	20
4-CHLORO-3-METHYLPHENOL	59-50-7	0.01	PQL	mg/L	48.00	117.00	40.00	Percent	48.00	117.00	40.00	Percent	20
HEXACHLOROBENZENE	118-74-1	0.01	PQL	mg/L	52.00	124.00	40.00	Percent	52.00	124.00	40.00	Percent	20
HEXACHLOROBUTADIENE	87-68-3	0.01	PQL	mg/L	28.00	109.00	40.00	Percent	28.00	109.00	40.00	Percent	20
HEXACHLOROETHANE	67-72-1	0.01	PQL	mg/L	24.00	104.00	40.00	Percent	24.00	104.00	40.00	Percent	20
NITROBENZENE	98-95-3	0.01	PQL	mg/L	47.00	112.00	40.00	Percent	47.00	112.00	40.00	Percent	20
PENTACHLOROPHENOL	87-86-5	0.02	PQL	mg/L	5.00	125.00	40.00	Percent	5.00	125.00	40.00	Percent	20
PYRIDINE	110-86-1	0.01	PQL	mg/L									0

Surrogates

Method: 8270C-TCLP SO

Analyte Name	*Client Analyte ID*	*Surrogate Lower*	*Surrogate Upper*	*Surrogate Units*
2,4,6-TRIBROMOPHENOL	118-79-6	37	122	Percent
2-FLUORO-1,1'-BIPHENYL	321-60-8	38	120	Percent
2-FLUOROPHENOL	367-12-4	1	103	Percent
NITROBENZENE-D5	20810-28-0	48	106	Percent
PHENOL-D5	4165-62-2	0	120	Percent
TERPHENYL-D14	98904-43-9	0	147	Percent

Method: ILM05.3 AQ Metals by ICP by ILM05.3

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
ALUMINUM	7429-90-5	200	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
ANTIMONY	7440-36-0	60	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
ARSENIC	7440-38-2	10	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
BARIUM	7440-39-3	200	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
BERYLLIUM	7440-41-7	5	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
CADMIUM	7440-43-9	5	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
CALCIUM	7440-70-2	5000	CRDL	ug/L					80.00	120.00	25.00	Percent	20
CHROMIUM	7440-47-3	10	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
COBALT	7440-48-4	50	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20

COPPER	7440-50-8	25	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
IRON	7439-89-6	100	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
LEAD	7439-92-1	10	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
MAGNESIUM	7439-95-4	5000	CRDL	ug/L					80.00	120.00	25.00	Percent	20
MANGANESE	7439-96-5	15	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
NICKEL	7440-02-0	40	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
POTASSIUM	7440-09-7	5000	CRDL	ug/L					80.00	120.00	25.00	Percent	20
SELENIUM	7782-49-2	35	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
SILVER	7440-22-4	10	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
SODIUM	7440-23-5	5000	CRDL	ug/L					80.00	120.00	25.00	Percent	20
THALLIUM	7440-28-0	25	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
VANADIUM	7440-62-2	50	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20
ZINC	7440-66-6	60	CRDL	ug/L	75.00	125.00	25.00	Percent	80.00	120.00	25.00	Percent	20

Method: ILM05.3 **SO** Metals by ICP by ILM05.3

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
ALUMINUM	7429-90-5	20	CRDL	mg/Kg					57.91	141.68	20.00	Percent	20
ANTIMONY	7440-36-0	6	CRDL	mg/Kg					11.43	222.86	20.00	Percent	20
ARSENIC	7440-38-2	1	CRDL	mg/Kg	75.00	125.00	25.00	Percent	79.73	119.82	20.00	Percent	20
BARIUM	7440-39-3	20	CRDL	mg/Kg	75.00	125.00	25.00	Percent	82.05	117.95	20.00	Percent	20
BERYLLIUM	7440-41-7	0.5	CRDL	mg/Kg	75.00	125.00	25.00	Percent	82.08	117.92	20.00	Percent	20
CADMIUM	7440-43-9	0.5	CRDL	mg/Kg	75.00	125.00	25.00	Percent	81.55	118.18	20.00	Percent	20
CALCIUM	7440-70-2	500	CRDL	mg/Kg					79.13	120.87	20.00	Percent	20
CHROMIUM	7440-47-3	1	CRDL	mg/Kg	75.00	125.00	25.00	Percent	78.57	121.43	20.00	Percent	20
COBALT	7440-48-4	5	CRDL	mg/Kg	75.00	125.00	25.00	Percent	81.83	118.17	20.00	Percent	20
COPPER	7440-50-8	2.5	CRDL	mg/Kg	75.00	125.00	25.00	Percent	82.34	117.76	20.00	Percent	20
IRON	7439-89-6	10	CRDL	mg/Kg					57.39	142.61	20.00	Percent	20
LEAD	7439-92-1	1	CRDL	mg/Kg	75.00	125.00	25.00	Percent	80.38	119.62	20.00	Percent	20
MAGNESIUM	7439-95-4	500	CRDL	mg/Kg					75.21	124.79	20.00	Percent	20
MANGANESE	7439-96-5	1.5	CRDL	mg/Kg	75.00	125.00	25.00	Percent	79.88	120.12	20.00	Percent	20

NICKEL	7440-02-0	4	CRDL	mg/Kg	75.00	125.00	25.00	Percent	81.25	118.75	20.00	Percent	20
POTASSIUM	7440-09-7	500	CRDL	mg/Kg					71.28	128.72	20.00	Percent	20
SELENIUM	7782-49-2	3.5	CRDL	mg/Kg	75.00	125.00	25.00	Percent	75.53	123.94	20.00	Percent	20
SILVER	7440-22-4	1	CRDL	mg/Kg	75.00	125.00	25.00	Percent	61.27	139.22	20.00	Percent	20
SODIUM	7440-23-5	500	CRDL	mg/Kg					55.57	144.66	20.00	Percent	20
THALLIUM	7440-28-0	2.5	CRDL	mg/Kg	75.00	125.00	25.00	Percent	75.62	124.15	20.00	Percent	20
VANADIUM	7440-62-2	5	CRDL	mg/Kg	75.00	125.00	25.00	Percent	74.73	125.27	20.00	Percent	20
ZINC	7440-66-6	6	CRDL	mg/Kg	75.00	125.00	25.00	Percent	79.14	120.86	20.00	Percent	20

Method: ILM05.3-Cn **AQ** Cyanide by ILM05.3

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
CYANIDE	57-12-5	10	CRDL	ug/L	75.00	125.00	25.00	Percent	52.50	145.00	20.00	Percent	20

Method: ILM05.3-Cn **SO** Cyanide by ILM05.3

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
CYANIDE	57-12-5	2.5	CRDL	mg/Kg	75.00	125.00	25.00	Percent	72.40	124.00	20.00	Percent	20

Method: ILM05.3-Hg **AQ** Mercury by ILM05.3

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
MERCURY	7439-97-6	0.2	CRDL	ug/L	80.00	120.00	25.00	Percent	67.30	120.00	20.00	Percent	20

Method: ILM05.3-Hg **SO** Mercury by ILM05.3

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
MERCURY	7439-97-6	0.1	CRDL	mg/Kg	75.00	125.00	25.00	Percent	51.31	149.16	20.00	Percent	20

Method: OLM04.3-PCB **AQ** Pesticides\PCB by OLM04.3

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
4,4'-DDD	72-54-8	0.1	CRQL	ug/L									0
4,4'-DDE	72-55-9	0.1	CRQL	ug/L									0
4,4'-DDT	50-29-3	0.1	CRQL	ug/L	38.00	127.00	27.00	Percent	38.00	127.00	27.00	Percent	0
ALDRIN	309-00-2	0.05	CRQL	ug/L	40.00	120.00	22.00	Percent	40.00	120.00	22.00	Percent	0
ALPHA-BHC	319-84-6	0.05	CRQL	ug/L									0
ALPHA-CHLORDANE	5103-71-9	0.05	CRQL	ug/L									0
AROCLOR-1016	12674-11-2	1	CRQL	ug/L									0
AROCLOR-1221	11104-28-2	2	CRQL	ug/L									0
AROCLOR-1232	11141-16-5	1	CRQL	ug/L									0
AROCLOR-1242	53469-21-9	1	CRQL	ug/L									0
AROCLOR-1248	12672-29-6	1	CRQL	ug/L									0
AROCLOR-1254	11097-69-1	1	CRQL	ug/L									0
AROCLOR-1260	11096-82-5	1	CRQL	ug/L									0
BETA-BHC	319-85-7	0.05	CRQL	ug/L									0
DELTA-BHC	319-86-8	0.05	CRQL	ug/L									0
DIELDRIN	60-57-1	0.1	CRQL	ug/L	52.00	126.00	18.00	Percent	52.00	126.00	18.00	Percent	0
ENDOSULFAN I	959-98-8	0.05	CRQL	ug/L									0
ENDOSULFAN II	33213-65-9	0.1	CRQL	ug/L									0
ENDOSULFAN SULFATE	1031-07-8	0.1	CRQL	ug/L									0
ENDRIN	72-20-8	0.1	CRQL	ug/L	56.00	121.00	21.00	Percent	56.00	121.00	21.00	Percent	0
ENDRIN ALDEHYDE	7421-93-4	0.1	CRQL	ug/L									0
ENDRIN KETONE	53494-70-5	0.1	CRQL	ug/L									0
GAMMA-BHC	58-89-9	0.05	CRQL	ug/L	56.00	123.00	15.00	Percent	56.00	123.00	15.00	Percent	0
GAMMA-CHLORDANE	5103-74-2	0.05	CRQL	ug/L									0
HEPTACHLOR	76-44-8	0.05	CRQL	ug/L	40.00	131.00	20.00	Percent	40.00	131.00	20.00	Percent	0
HEPTACHLOR EPOXIDE	1024-57-3	0.05	CRQL	ug/L									0
METHOXYCHLOR	72-43-5	0.5	CRQL	ug/L									0

TOXAPHENE	8001-35-2	5	CRQL	ug/L									0

Surrogates

Method: OLM04.3-P AQ

Analyte Name	*Client Analyte ID*	*Surrogate Lower*	*Surrogate Upper*	*Surrogate Units*
DECACHLOROBIPHENYL	2051-24-3	30	150	Percent
TETRACHLORO-M-XYLENE	877-09-8	30	150	Percent

Method: OLM04.3-PCB SO Pesticides\PCB by OLM04.3

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
4,4'-DDD	72-54-8	3.3	CRQL	ug/Kg									0
4,4'-DDE	72-55-9	3.3	CRQL	ug/Kg									0
4,4'-DDT	50-29-3	3.3	CRQL	ug/Kg	23.00	134.00	27.00	Percent	23.00	134.00	27.00	Percent	0
ALDRIN	309-00-2	1.7	CRQL	ug/Kg	34.00	132.00	22.00	Percent	34.00	132.00	22.00	Percent	0
ALPHA-BHC	319-84-6	1.7	CRQL	ug/Kg									0
ALPHA-CHLORDANE	5103-71-9	1.7	CRQL	ug/Kg									0
AROCLOR 1016	12674-11-2	33	CRQL	ug/Kg									0
AROCLOR 1221	11104-28-2	67	CRQL	ug/Kg									0
AROCLOR 1232	11141-16-5	33	CRQL	ug/Kg									0
AROCLOR 1242	53469-21-9	33	CRQL	ug/Kg									0
AROCLOR 1248	12672-29-6	33	CRQL	ug/Kg									0
AROCLOR 1254	11097-69-1	33	CRQL	ug/Kg									0
AROCLOR 1260	11096-82-5	33	CRQL	ug/Kg									0
BETA-BHC	319-85-7	1.7	CRQL	ug/Kg									0
DELTA-BHC	319-86-8	1.7	CRQL	ug/Kg									0
DIELDRIN	60-57-1	3.3	CRQL	ug/Kg	31.00	134.00	18.00	Percent	31.00	134.00	18.00	Percent	0
ENDOSULFAN I	959-98-8	1.7	CRQL	ug/Kg									0
ENDOSULFAN II	33213-65-9	3.3	CRQL	ug/Kg									0
ENDOSULFAN SULFATE	1031-07-8	3.3	CRQL	ug/Kg									0
ENDRIN	72-20-8	3.3	CRQL	ug/Kg	42.00	139.00	21.00	Percent	42.00	139.00	21.00	Percent	0
ENDRIN ALDEHYDE	7421-93-4	3.3	CRQL	ug/Kg									0

ENDRIN KETONE	53494-70-5	3.3	CRQL	ug/Kg									0
GAMMA-BHC	58-89-9	1.7	CRQL	ug/Kg	46.00	127.00	15.00	Percent	46.00	127.00	15.00	Percent	0
GAMMA-CHLORDANE	5103-74-2	1.7	CRQL	ug/Kg									0
HEPTACHLOR	76-44-8	1.7	CRQL	ug/Kg	35.00	130.00	20.00	Percent	35.00	130.00	20.00	Percent	0
HEPTACHLOR EPOXIDE	1024-57-3	1.7	CRQL	ug/Kg									0
METHOXYCHLOR	72-43-5	17	CRQL	ug/Kg									0
TOXAPHENE	8001-35-2	170	CRQL	ug/Kg									0

Surrogates

Method: OLM04.3-P SO

Analyte Name	*Client Analyte ID*	*Surrogate Lower*	*Surrogate Upper*	*Surrogate Units*
DECACHLOROBIPHENYL	2051-24-3	30	150	Percent
TETRACHLORO-M-XYLENE	877-09-8	30	150	Percent

Method: OLM04.3-SVOA AQ Semivolatiles by OLM04.3

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
2,4,5-TRICHLOROPHENOL	95-95-4	25	CRQL	ug/L									0
2,4,6-TRICHLOROPHENOL	88-06-2	10	CRQL	ug/L									0
2,4-DICHLOROPHENOL	120-83-2	10	CRQL	ug/L									0
2,4-DIMETHYLPHENOL	105-67-9	10	CRQL	ug/L									0
2,4-DINITROPHENOL	51-28-5	25	CRQL	ug/L									0
2,4-DINITROTOLUENE	121-14-2	10	CRQL	ug/L	24.00	96.00	38.00	Percent	24.00	96.00	38.00	Percent	0
2,6-DINITROTOLUENE	606-20-2	10	CRQL	ug/L									0
2-CHLORONAPHTHALENE	91-58-7	10	CRQL	ug/L									0
2-CHLOROPHENOL	95-57-8	10	CRQL	ug/L	27.00	123.00	40.00	Percent	27.00	123.00	40.00	Percent	0
2-METHYLNAPHTHALENE	91-57-6	10	CRQL	ug/L									0
2-METHYLPHENOL	95-48-7	10	CRQL	ug/L									0
2-NITROANILINE	88-74-4	25	CRQL	ug/L									0
2-NITROPHENOL	88-75-5	10	CRQL	ug/L									0
3,3'-DICHLOROBENZIDINE	91-94-1	10	CRQL	ug/L									0
3-NITROANILINE	99-09-2	25	CRQL	ug/L									0

4,6-DINITRO-2-METHYLPHENOL	534-52-1	25	CRQL	ug/L									0
4-BROMOPHENYL PHENYL ETHER	101-55-3	10	CRQL	ug/L									0
4-CHLORO-3-METHYLPHENOL	59-50-7	10	CRQL	ug/L	23.00	97.00	42.00	Percent	23.00	97.00	42.00	Percent	0
4-CHLOROANILINE	106-47-8	10	CRQL	ug/L									0
4-CHLOROPHENYL PHENYL ETHER	7005-72-3	10	CRQL	ug/L									0
4-METHYLPHENOL	106-44-5	10	CRQL	ug/L									0
4-NITROANILINE	100-01-6	25	CRQL	ug/L									0
4-NITROPHENOL	100-02-7	25	CRQL	ug/L	10.00	80.00	50.00	Percent	10.00	80.00	50.00	Percent	0
ACENAPHTHENE	83-32-9	10	CRQL	ug/L	46.00	118.00	31.00	Percent	46.00	118.00	31.00	Percent	0
ACENAPHTHYLENE	208-96-8	10	CRQL	ug/L									0
ACETOPHENONE	98-86-2	10	CRQL	ug/L									0
ANTHRACENE	120-12-7	10	CRQL	ug/L									0
ATRAZINE	1912-24-9	10	CRQL	ug/L									0
BENZALDEHYDE	100-52-7	10	CRQL	ug/L									0
BENZO(A)ANTHRACENE	56-55-3	10	CRQL	ug/L									0
BENZO(A)PYRENE	50-32-8	10	CRQL	ug/L									0
BENZO(B)FLUORANTHENE	205-99-2	10	CRQL	ug/L									0
BENZO(G,H,I)PERYLENE	191-24-2	10	CRQL	ug/L									0
BENZO(K)FLUORANTHENE	207-08-9	10	CRQL	ug/L									0
BIPHENYL	92-52-4	10	CRQL	ug/L									0
BIS(2-CHLOROETHOXY)METHANE	111-91-1	10	CRQL	ug/L									0
BIS(2-CHLOROETHYL) ETHER	111-44-4	10	CRQL	ug/L									0
BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	10	CRQL	ug/L									0
BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	10	CRQL	ug/L									0
BUTYLBENZYL PHTHALATE	85-68-7	10	CRQL	ug/L									0
CAPROLACTAM	105-60-2	10	CRQL	ug/L									0
CARBAZOLE	86-74-8	10	CRQL	ug/L									0
CHRYSENE	218-01-9	10	CRQL	ug/L									0
DIBENZ(A,H)ANTHRACENE	53-70-3	10	CRQL	ug/L									0
DIBENZOFURAN	132-64-9	10	CRQL	ug/L									0
DIETHYL PHTHALATE	84-66-2	10	CRQL	ug/L									0
DIMETHYL PHTHALATE	131-11-3	10	CRQL	ug/L									0
DI-N-BUTYL PHTHALATE	84-74-2	10	CRQL	ug/L									0

DI-N-OCTYL PHTHALATE	117-84-0	10	CRQL	ug/L									0
FLUORANTHENE	206-44-0	10	CRQL	ug/L									0
FLUORENE	86-73-7	10	CRQL	ug/L									0
HEXACHLOROBENZENE	118-74-1	10	CRQL	ug/L									0
HEXACHLOROBUTADIENE	87-68-3	10	CRQL	ug/L									0
HEXACHLOROCYCLOPENTADIENE	77-47-4	10	CRQL	ug/L									0
HEXACHLOROETHANE	67-72-1	10	CRQL	ug/L									0
INDENO(1,2,3-CD)PYRENE	193-39-5	10	CRQL	ug/L									0
ISOPHORONE	78-59-1	10	CRQL	ug/L									0
NAPHTHALENE	91-20-3	10	CRQL	ug/L									0
NITROBENZENE	98-95-3	10	CRQL	ug/L									0
N-NITROSO-DI-N-PROPYLAMINE	621-64-7	10	CRQL	ug/L	41.00	116.00	38.00	Percent	41.00	116.00	38.00	Percent	0
N-NITROSODIPHENYLAMINE	86-30-6	10	CRQL	ug/L									0
PENTACHLOROPHENOL	87-86-5	25	CRQL	ug/L	9.00	103.00	50.00	Percent	9.00	103.00	50.00	Percent	0
PHENANTHRENE	85-01-8	10	CRQL	ug/L									0
PHENOL	108-95-2	10	CRQL	ug/L	12.00	110.00	42.00	Percent	12.00	110.00	42.00	Percent	0
PYRENE	129-00-0	10	CRQL	ug/L	26.00	127.00	31.00	Percent	26.00	127.00	31.00	Percent	0

Surrogates

Method: OLM04.3-SV AQ

Analyte Name	*Client Analyte ID*	*Surrogate Lower*	*Surrogate Upper*	*Surrogate Units*
1,2-DICHLOROBENZENE-D4	2199-69-1	16	110	Percent
2,4,6-TRIBROMOPHENOL	118-79-6	10	123	Percent
2-CHLOROPHENOL-D4	93951-73-6	33	110	Percent
2-FLUORO-1,1'-BIPHENYL	321-60-8	43	116	Percent
2-FLUOROPHENOL	367-12-4	21	110	Percent
NITROBENZENE-D5	20810-28-0	35	114	Percent
PHENOL-D5	4165-62-2	10	110	Percent
TERPHENYL-D14	98904-43-9	33	141	Percent

Project NYSDEC Adirondack Steel

Method: OLM04.3-SVOA **SO** Semivolatiles by OLM04.3

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
2,4,5-TRICHLOROPHENOL	95-95-4	830	CRQL	ug/Kg									0
2,4,6-TRICHLOROPHENOL	88-06-2	330	CRQL	ug/Kg									0
2,4-DICHLOROPHENOL	120-83-2	330	CRQL	ug/Kg									0
2,4-DIMETHYLPHENOL	105-67-9	330	CRQL	ug/Kg									0
2,4-DINITROPHENOL	51-28-5	830	CRQL	ug/Kg									0
2,4-DINITROTOLUENE	121-14-2	330	CRQL	ug/Kg	28.00	89.00	47.00	Percent	28.00	89.00	47.00	Percent	0
2,6-DINITROTOLUENE	606-20-2	330	CRQL	ug/Kg									0
2-CHLORONAPHTHALENE	91-58-7	330	CRQL	ug/Kg									0
2-CHLOROPHENOL	95-57-8	330	CRQL	ug/Kg	25.00	102.00	50.00	Percent	25.00	102.00	50.00	Percent	0
2-METHYLNAPHTHALENE	91-57-6	330	CRQL	ug/Kg									0
2-METHYLPHENOL	95-48-7	330	CRQL	ug/Kg									0
2-NITROANILINE	88-74-4	830	CRQL	ug/Kg									0
2-NITROPHENOL	88-75-5	330	CRQL	ug/Kg									0
3,3'-DICHLOROBENZIDINE	91-94-1	330	CRQL	ug/Kg									0
3-NITROANILINE	99-09-2	830	CRQL	ug/Kg									0
4,6-DINITRO-2-METHYLPHENOL	534-52-1	830	CRQL	ug/Kg									0
4-BROMOPHENYL PHENYL ETHER	101-55-3	330	CRQL	ug/Kg									0
4-CHLORO-3-METHYLPHENOL	59-50-7	330	CRQL	ug/Kg	26.00	103.00	33.00	Percent	26.00	103.00	33.00	Percent	0
4-CHLOROANILINE	106-47-8	330	CRQL	ug/Kg									0
4-CHLOROPHENYL PHENYL ETHER	7005-72-3	330	CRQL	ug/Kg									0
4-METHYLPHENOL	106-44-5	330	CRQL	ug/Kg									0
4-NITROANILINE	100-01-6	830	CRQL	ug/Kg									0
4-NITROPHENOL	100-02-7	830	CRQL	ug/Kg	11.00	114.00	50.00	Percent	11.00	114.00	50.00	Percent	0
ACENAPHTHENE	83-32-9	330	CRQL	ug/Kg	31.00	137.00	19.00	Percent	31.00	137.00	19.00	Percent	0
ACENAPHTHYLENE	208-96-8	330	CRQL	ug/Kg									0
ACETOPHENONE	98-86-2	330	CRQL	ug/Kg									0
ANTHRACENE	120-12-7	330	CRQL	ug/Kg									0
ATRAZINE	1912-24-9	330	CRQL	ug/Kg									0
BENZALDEHYDE	100-52-7	330	CRQL	ug/Kg									0

BENZO(A)ANTHRACENE	56-55-3	330	CRQL	ug/Kg									0
BENZO(A)PYRENE	50-32-8	330	CRQL	ug/Kg									0
BENZO(B)FLUORANTHENE	205-99-2	330	CRQL	ug/Kg									0
BENZO(G,H,I)PERYLENE	191-24-2	330	CRQL	ug/Kg									0
BENZO(K)FLUORANTHENE	207-08-9	330	CRQL	ug/Kg									0
BIPHENYL	92-52-4	330	CRQL	ug/Kg									0
BIS(2-CHLOROETHOXY)METHANE	111-91-1	330	CRQL	ug/Kg									0
BIS(2-CHLOROETHYL) ETHER	111-44-4	330	CRQL	ug/Kg									0
BIS(2-CHLOROISOPROPYL) ETHER	108-60-1	330	CRQL	ug/Kg									0
BIS(2-ETHYLHEXYL) PHTHALATE	117-81-7	330	CRQL	ug/Kg									0
BUTYLBENZYL PHTHALATE	85-68-7	330	CRQL	ug/Kg									0
CAPROLACTAM	105-60-2	330	CRQL	ug/Kg									0
CARBAZOLE	86-74-8	330	CRQL	ug/Kg									0
CHRYSENE	218-01-9	330	CRQL	ug/Kg									0
DIBENZ(A,H)ANTHRACENE	53-70-3	330	CRQL	ug/Kg									0
DIBENZOFURAN	132-64-9	330	CRQL	ug/Kg									0
DIETHYL PHTHALATE	84-66-2	330	CRQL	ug/Kg									0
DIMETHYL PHTHALATE	131-11-3	330	CRQL	ug/Kg									0
DI-N-BUTYL PHTHALATE	84-74-2	330	CRQL	ug/Kg									0
DI-N-OCTYL PHTHALATE	117-84-0	330	CRQL	ug/Kg									0
FLUORANTHENE	206-44-0	330	CRQL	ug/Kg									0
FLUORENE	86-73-7	330	CRQL	ug/Kg									0
HEXACHLOROBENZENE	118-74-1	330	CRQL	ug/Kg									0
HEXACHLOROBUTADIENE	87-68-3	330	CRQL	ug/Kg									0
HEXACHLOROCYCLOPENTADIENE	77-47-4	330	CRQL	ug/Kg									0
HEXACHLOROETHANE	67-72-1	330	CRQL	ug/Kg									0
INDENO(1,2,3-CD)PYRENE	193-39-5	330	CRQL	ug/Kg									0
ISOPHORONE	78-59-1	330	CRQL	ug/Kg									0
NAPHTHALENE	91-20-3	330	CRQL	ug/Kg									0
NITROBENZENE	98-95-3	330	CRQL	ug/Kg									0
N-NITROSO-DI-N-PROPYLAMINE	621-64-7	330	CRQL	ug/Kg	41.00	126.00	38.00	Percent	41.00	126.00	38.00	Percent	0
N-NITROSODIPHENYLAMINE	86-30-6	330	CRQL	ug/Kg									0
PENTACHLOROPHENOL	87-86-5	830	CRQL	ug/Kg	17.00	109.00	47.00	Percent	17.00	109.00	47.00	Percent	0

PHENANTHRENE	85-01-8	330	CRQL	ug/Kg									0
PHENOL	108-95-2	330	CRQL	ug/Kg	26.00	90.00	35.00	Percent	26.00	90.00	35.00	Percent	0
PYRENE	129-00-0	330	CRQL	ug/Kg	35.00	142.00	36.00	Percent	35.00	142.00	36.00	Percent	0

Surrogates

Method: OLM04.3-SV SO

Analyte Name	*Client Analyte ID*	*Surrogate Lower*	*Surrogate Upper*	*Surrogate Units*
1,2-DICHLOROBENZENE-D4	2199-69-1	20	130	Percent
2,4,6-TRIBROMOPHENOL	118-79-6	19	122	Percent
2-CHLOROPHENOL-D4	93951-73-6	20	130	Percent
2-FLUORO-1,1'-BIPHENYL	321-60-8	30	115	Percent
2-FLUOROPHENOL	367-12-4	25	121	Percent
NITROBENZENE-D5	20810-28-0	23	120	Percent
PHENOL-D5	4165-62-2	24	113	Percent
TERPHENYL-D14	98904-43-9	18	137	Percent

Method: OLM04.3-VOA AQ Volatiles by OLM04.3

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
1,1,1-TRICHLOROETHANE	71-55-6	10	CRQL	ug/L									0
1,1,2,2-TETRACHLOROETHANE	79-34-5	10	CRQL	ug/L									0
1,1,2-TRICHLORO-1,2,2-TRIFLURORETHANE	76-13-1	10	CRQL	ug/L									0
1,1,2-TRICHLOROETHANE	79-00-5	10	CRQL	ug/L									0
1,1-DICHLOROETHANE	75-34-3	10	CRQL	ug/L									0
1,1-DICHLOROETHENE	75-35-4	10	CRQL	ug/L	61.00	145.00	14.00	Percent	61.00	145.00	14.00	Percent	0
1,2,4-TRICHLOROBENZENE	120-82-1	10	CRQL	ug/L									0
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	10	CRQL	ug/L									0
1,2-DIBROMOETHANE	106-93-4	10	CRQL	ug/L									0
1,2-DICHLOROBENZENE	95-50-1	10	CRQL	ug/L									0
1,2-DICHLOROETHANE	107-06-2	10	CRQL	ug/L									0
1,2-DICHLOROPROPANE	78-87-5	10	CRQL	ug/L									0
1,3-DICHLOROBENZENE	541-73-1	10	CRQL	ug/L									0

1,4-DICHLOROBENZENE	106-46-7	10	CRQL	ug/L									0
2-BUTANONE	78-93-3	10	CRQL	ug/L									0
2-HEXANONE	591-78-6	10	CRQL	ug/L									0
4-METHYL-2-PENTANONE	108-10-1	10	CRQL	ug/L									0
ACETONE	67-64-1	10	CRQL	ug/L									0
BENZENE	71-43-2	10	CRQL	ug/L	76.00	127.00	11.00	Percent	76.00	127.00	11.00	Percent	0
BROMODICHLOROMETHANE	75-27-4	10	CRQL	ug/L									0
BROMOFORM	75-25-2	10	CRQL	ug/L									0
BROMOMETHANE	74-83-9	10	CRQL	ug/L									0
CARBON DISULFIDE	75-15-0	10	CRQL	ug/L									0
CARBON TETRACHLORIDE	56-23-5	10	CRQL	ug/L									0
CHLOROBENZENE	108-90-7	10	CRQL	ug/L	75.00	130.00	13.00	Percent	75.00	130.00	13.00	Percent	0
CHLOROETHANE	75-00-3	10	CRQL	ug/L									0
CHLOROFORM	67-66-3	10	CRQL	ug/L									0
CHLOROMETHANE	74-87-3	10	CRQL	ug/L									0
CIS-1,2-DICHLOROETHENE	156-59-2	10	CRQL	ug/L									0
CIS-1,3-DICHLOROPROPENE	10061-01-5	10	CRQL	ug/L									0
CYCLOHEXANE	110-82-7	10	CRQL	ug/L									0
DIBROMOCHLOROMETHANE	124-48-1	10	CRQL	ug/L									0
DICHLORODIFLUOROMETHANE	75-71-8	10	CRQL	ug/L									0
ETHYLBENZENE	100-41-4	10	CRQL	ug/L									0
ISOPROPYLBENZENE	98-82-8	10	CRQL	ug/L									0
METHYL ACETATE	79-20-9	10	CRQL	ug/L									0
METHYL TERT-BUTYL ETHER	1634-04-4	10	CRQL	ug/L									0
METHYLCYCLOHEXANE	108-87-2	10	CRQL	ug/L									0
METHYLENE CHLORIDE	75-09-2	10	CRQL	ug/L									0
STYRENE	100-42-5	10	CRQL	ug/L									0
TETRACHLOROETHENE	127-18-4	10	CRQL	ug/L									0
TOLUENE	108-88-3	10	CRQL	ug/L	76.00	125.00	13.00	Percent	76.00	125.00	13.00	Percent	0
TOTAL XYLENES	1330-20-7	10	CRQL	ug/L									0
TRANS-1,2-DICHLOROETHENE	156-60-5	10	CRQL	ug/L									0
TRANS-1,3-DICHLOROPROPENE	10061-02-6	10	CRQL	ug/L									0
TRICHLOROETHENE	79-01-6	10	CRQL	ug/L	71.00	120.00	14.00	Percent	71.00	120.00	14.00	Percent	0

TRICHLOROFLUOROMETHANE	75-69-4	10	CRQL	ug/L									0
VINYL CHLORIDE	75-01-4	10	CRQL	ug/L									0

Surrogates

Method: OLM04.3-V AQ

Analyte Name	*Client Analyte ID*	*Surrogate Lower*	*Surrogate Upper*	*Surrogate Units*
1,2-DICHLOROETHANE-D4	17060-07-0	76	114	Percent
4-BROMOFLUOROBENZENE (SU	460-00-4	86	115	Percent
TOLUENE-D8	2037-26-5	88	110	Percent

Method: OLM04.3-VOA SO Volatiles by OLM04.3

Analyte Name	*Client Analyte ID*	*RL*	*RL Type*	*RL Units*	*MS Lower*	*MS Upper*	*MS RPD*	*MS Units*	*LCS Lower*	*LCS Upper*	*LCS RPD*	*LCS Units*	*Lab Dup*
1,1,1-TRICHLOROETHANE	71-55-6	10	CRQL	ug/Kg									0
1,1,2,2-TETRACHLOROETHANE	79-34-5	10	CRQL	ug/Kg									0
1,1,2-TRICHLORO-1,2,2-TRIFLURORETHANE	76-13-1	10	CRQL	ug/Kg									0
1,1,2-TRICHLOROETHANE	79-00-5	10	CRQL	ug/Kg									0
1,1-DICHLOROETHANE	75-34-3	10	CRQL	ug/Kg									0
1,1-DICHLOROETHENE	75-35-4	10	CRQL	ug/Kg	59.00	172.00	22.00	Percent	59.00	172.00	22.00	Percent	0
1,2,4-TRICHLOROBENZENE	120-82-1	10	CRQL	ug/Kg									0
1,2-DIBROMO-3-CHLOROPROPANE	96-12-8	10	CRQL	ug/Kg									0
1,2-DIBROMOETHANE	106-93-4	10	CRQL	ug/Kg									0
1,2-DICHLOROBENZENE	95-50-1	10	CRQL	ug/Kg									0
1,2-DICHLOROETHANE	107-06-2	10	CRQL	ug/Kg									0
1,2-DICHLOROPROPANE	78-87-5	10	CRQL	ug/Kg									0
1,3-DICHLOROBENZENE	541-73-1	10	CRQL	ug/Kg									0
1,4-DICHLOROBENZENE	106-46-7	10	CRQL	ug/Kg									0
2-BUTANONE	78-93-3	10	CRQL	ug/Kg									0
2-HEXANONE	591-78-6	10	CRQL	ug/Kg									0
4-METHYL-2-PENTANONE	108-10-1	10	CRQL	ug/Kg									0
ACETONE	67-64-1	10	CRQL	ug/Kg									0

BENZENE	71-43-2	10	CRQL	ug/Kg	66.00	142.00	21.00	Percent	66.00	142.00	21.00	Percent	0
BROMODICHLOROMETHANE	75-27-4	10	CRQL	ug/Kg									0
BROMOFORM	75-25-2	10	CRQL	ug/Kg									0
BROMOMETHANE	74-83-9	10	CRQL	ug/Kg									0
CARBON DISULFIDE	75-15-0	10	CRQL	ug/Kg									0
CARBON TETRACHLORIDE	56-23-5	10	CRQL	ug/Kg									0
CHLOROBENZENE	108-90-7	10	CRQL	ug/Kg	60.00	133.00	21.00	Percent	60.00	133.00	21.00	Percent	0
CHLOROETHANE	75-00-3	10	CRQL	ug/Kg									0
CHLOROFORM	67-66-3	10	CRQL	ug/Kg									0
CHLOROMETHANE	74-87-3	10	CRQL	ug/Kg									0
CIS-1,2-DICHLOROETHENE	156-59-2	10	CRQL	ug/Kg									0
CIS-1,3-DICHLOROPROPENE	10061-01-5	10	CRQL	ug/Kg									0
CYCLOHEXANE	110-82-7	10	CRQL	ug/Kg									0
DIBROMOCHLOROMETHANE	124-48-1	10	CRQL	ug/Kg									0
DICHLORODIFLUOROMETHANE	75-71-8	10	CRQL	ug/Kg									0
ETHYLBENZENE	100-41-4	10	CRQL	ug/Kg									0
ISOPROPYLBENZENE	98-82-8	10	CRQL	ug/Kg									0
METHYL ACETATE	79-20-9	10	CRQL	ug/Kg									0
METHYL TERT-BUTYL ETHER	1634-04-4	10	CRQL	ug/Kg									0
METHYLCYCLOHEXANE	108-87-2	10	CRQL	ug/Kg									0
METHYLENE CHLORIDE	75-09-2	10	CRQL	ug/Kg									0
STYRENE	100-42-5	10	CRQL	ug/Kg									0
TETRACHLOROETHENE	127-18-4	10	CRQL	ug/Kg									0
TOLUENE	108-88-3	10	CRQL	ug/Kg	59.00	139.00	21.00	Percent	59.00	139.00	21.00	Percent	0
TOTAL XYLENES	1330-20-7	10	CRQL	ug/Kg									0
TRANS-1,2-DICHLOROETHENE	156-60-5	10	CRQL	ug/Kg									0
TRANS-1,3-DICHLOROPROPENE	10061-02-6	10	CRQL	ug/Kg									0
TRICHLOROETHENE	79-01-6	10	CRQL	ug/Kg	62.00	137.00	24.00	Percent	62.00	137.00	24.00	Percent	0
TRICHLOROFLUOROMETHANE	75-69-4	10	CRQL	ug/Kg									0
VINYL CHLORIDE	75-01-4	10	CRQL	ug/Kg									0

Surrogates

Method: OLM04.3-V SO

Analyte Name	*Client Analyte ID*	*Surrogate Lower*	*Surrogate Upper*	*Surrogate Units*
1,2-DICHLOROETHANE-D4	17060-07-0	70	121	Percent
4-BROMOFLUOROBENZENE (SU	460-00-4	59	113	Percent
TOLUENE-D8	2037-26-5	84	138	Percent

Project NYSDEC Adirondack Steel

Method: OLC03.2-VOA Low Concentration **AQ** Volatiles by OLC03.2

Analyte Name	*MDL*	*PQL*	*MCL*	*UQL*
1,1,1-Trichloroethane	0.11	0.5	0	25
1,1,2,2-Tetrachloroethane	0.12	0.5	0	25
1,1,2-Trichloro-1,2,2-trifluoroethane	0.15	0.5	0	25
1,1,2-Trichloroethane	0.11	0.5	0	25
1,1-Dichloroethane	0.11	0.5	0	25
1,1-Dichloroethene	0.2	0.5	0	25
1,2,3-Trichlorobenzene	0.079	0.5	0	25
1,2,4-Trichlorobenzene	0.1	0.5	0	25
1,2-Dibromo-3-chloropropane	0.13	0.5	0	25
1,2-Dibromoethane	0.1	0.5	0	25
1,2-Dichlorobenzene	0.11	0.5	0	25
1,2-Dichloroethane	0.11	0.5	0	25
1,2-Dichloropropane	0.13	0.5	0	25
1,3-Dichlorobenzene	0.12	0.5	0	25
1,4-Dichlorobenzene	0.098	0.5	0	25
2-Butanone	1.8	5	0	125
2-Hexanone	1.6	5	0	125
4-Methyl-2-pentanone	1.1	5	0	125
Acetone	3	5	0	125
Benzene	0.1	0.5	0	25
Bromochloromethane	0.11	0.5	0	25
Bromodichloromethane	0.11	0.5	0	25
Bromoform	0.095	0.5	0	25
Bromomethane	0.14	0.5	0	25
Carbon disulfide	0.16	0.5	0	25
Carbon tetrachloride	0.12	0.5	0	25
Chlorobenzene	0.17	0.5	0	25
Chloroethane	0.15	0.5	0	25
Chloroform	0.13	0.5	0	25
Chloromethane	0.14	0.5	0	25
cis-1,2-Dichloroethene	0.13	0.5	0	25
cis-1,3-Dichloropropene	0.096	0.5	0	25
Cyclohexane	0.11	0.5	0	25
Dibromochloromethane	0.11	0.5	0	25

Project NYSDEC Adirondack Steel

Method: OLC03.2-VOA Low Concentration **AQ** Volatiles by OLC03.2

Analyte Name	*MDL*	*PQL*	*MCL*	*UQL*
Dichlorodifluoromethane	0.12	0.5	0	25
Ethylbenzene	0.12	0.5	0	25
Isopropylbenzene	0.11	0.5	0	25
Methyl acetate	0.49	0.5	0	25
Methyl tert-butyl ether	0.12	0.5	0	25
Methylcyclohexane	0.097	0.5	0	25
Methylene chloride	0.15	0.5	0	25
Styrene	0.11	0.5	0	25
Tetrachloroethene	0.11	0.5	0	25
Toluene	0.11	0.5	0	25
trans-1,2-Dichloroethene	0.12	0.5	0	25
trans-1,3-Dichloropropene	0.13	0.5	0	25
Trichloroethene	0.13	0.5	0	25
Trichlorofluoromethane	0.2	0.5	0	25
Vinyl chloride	0.15	0.5	0	25
1,4-Dichlorobenzene-d4	0.005	0.5	0	25
1,4-Difluorobenzene	0.005	0.5	0	25
Chlorobenzene-d5	0.005	0.5	0	25
Xylenes (Total)	0.35	0.5	0	150
1,1,2,2-Tetrachloroethane-d2	0.14	0.5	0	25
1,1-Dichloroethene-d2	0.25	0.5	0	25
1,2-Dichlorobenzene-d4	0.2	0.5	0	25
1,2-Dichloroethane-d4	0.23	0.5	0	25
1,2-Dichloropropane-d6	0.16	0.5	0	25
2-Butanone-d5	1	5	0	125
2-Hexanone-d5	0.9	5	0	125
Benzene-d6	0.13	0.5	0	25
Bromoform-d	0.17	0.5	0	25
Chloroethane-d5	0.21	0.5	0	25
Chloroform-d	0.17	0.5	0	25
Toluene-d8	0.17	0.5	0	25
trans-1,3-Dichloropropene-d4	0.19	0.5	0	25
Vinyl chloride-d3	0.44	0.5	0	25
1,1,1,2-Tetrachloroethane	0.005	0.5	0	25

Project NYSDEC Adirondack Steel

Method: OLC03.2-VOA Low Concentration **AQ** Volatiles by OLC03.2

Analyte Name	*MDL*	*PQL*	*MCL*	*UQL*
1,1-Dichloropropene	0.005	0.5	0	25
1,2,3-Trichloropropane	0.005	0.5	0	25
1,2,4-Trimethylbenzene	0.005	0.5	0	25
1,2-Dichloroethene, Total	0.005	0.5	0	25
1,2-Dichlorotetrafluoroethane	0.005	0.5	0	25
1,3,5-Trichlorobenzene	0.5	0.5	0	25
1,3,5-Trimethylbenzene	0.005	0.5	0	25
1,3-Dichloropropane	0.005	0.5	0	25
1,4-Dioxane	0.005	0.5	0	25
1-Chlorohexane	0.005	0.5	0	25
2,2-Dichloropropane	0.005	0.5	0	25
2-Chloro-1,3-butadiene	0.005	0.5	0	25
2-Chloroethyl vinyl ether	0.005	0.5	0	25
2-Chlorotoluene	0.005	0.5	0	25
4-Chlorotoluene	0.005	0.5	0	25
4-Isopropyltoluene	0.005	0.5	0	25
Acetonitrile	0.005	0.5	0	25
Acrolein	0.005	0.5	0	25
Acrylonitrile	0.005	0.5	0	25
Alkylbenzenes, Total	0.005	0.5	0	0
Allyl chloride	0.005	0.5	0	25
bis(2-Chloroethyl)ether	0.005	0.5	0	25
Bromobenzene	0.005	0.5	0	25
Bromofluorobenzene	0.005	0.5	0	25
Dibromofluoromethane	0.005	0.5	0	25
Dibromomethane	0.005	0.5	0	25
Ethyl methacrylate	0.005	0.5	0	25
Fluorobenzene	0.005	0.5	0	25
Freon-113	0.005	0.5	0	25
Hexachlorobutadiene	0.005	0.5	0	25
Hexachloroethane	0.005	0.5	0	25
Iodomethane	0.005	0.5	0	25
Isobutyl alcohol	0.005	0.5	0	25
Isopropyl alcohol	0.005	0.5	0	25

Project NYSDEC Adirondack Steel

Method: OLC03.2-VOA Low Concentration **AQ** Volatiles by OLC03.2

Analyte Name	*MDL*	*PQL*	*MCL*	*UQL*
m,p-Xylene	0.24	0.5	0	50
Methacrylonitrile	0.005	0.5	0	25
Methyl methacrylate	0.005	0.5	0	25
n-Butylbenzene	0.005	0.5	0	25
n-Propylbenzene	0.005	0.5	0	25
Naphthalene	0.005	0.5	0	25
o-Xylene	0.11	0.5	0	25
Pentachloroethane	0.005	0.5	0	25
Pentafluorobenzene	0.005	0.5	0	25
Propionitrile	0.005	0.5	0	25
sec-Butylbenzene	0.005	0.5	0	25
tert-Butylbenzene	0.005	0.5	0	25
Tetrahydrofuran	0.005	0.5	0	25
trans-1,4-Dichloro-2-butene	0.005	0.5	0	25
Vinyl acetate	0.005	0.5	0	25
Xylene (Total)	0.005	0.5	0	75

B Specifications for Electronic Data Deliverables

Sample Receipt File

This table contains information related to the receipt of field samples.

The file should be a comma-delimited ASCII text file or Excel CSV file (csv preferable). The naming convention should be as follows, laboratory reporting batch ID (SDG) followed by SR (sample receipt) with the extension of .txt or .csv. For example:

SDG001SR.csv

Field Name	Field Name Description	Field Type	Field Length	Standard Value List
LabID	Laboratory Identifier	Text	20	Yes
ProjectNumber	Project number assigned by the client	Text	30	Yes
ProjectName	Project name assigned by the client	Text	90	Yes
ClientSampleID	Client or contractor's identifier for a field sample	Text	25	No
Collected	Date and Time of sample collection. Refer to date/time format at the end of this table.	Date/ Time	16*	No
MatrixID	Sample matrix (i.e. AQ, SO, etc.)	Text	10	Yes
LabSampleID	Laboratory tracking number for field samples. Must be unique for a given field sample.	Text	25	No
ShippingBatchID	Unique identifier assigned to a cooler or shipping container used to transport client or filed samples. Links all samples to a cooler or shipping container. (optional)	Text	25	No
Temperature	Temperature (in centigrade degrees) of the samples as received.	Numeric	10	No
LabReceipt	Date and time the sample was received in the lab. A time value of 00:00 may be entered. Refer to the date/time format at the end of this table.	Date/ Time	16*	No
LabAnalysisRefMethodID	Laboratory reference method ID. The method ID may be an EPA Method number or laboratory identifier for a method such as a SOP number, however; values used for Laboratory Method IDs are specified by the project and must be in the standard value list for method IDs.	Text	25	Yes (project specific See QAPP and Project Library)
PreparationType	Preparation Method Number (i.e. 3010A,3510C, 3550C, 5030B, etc.) For analytical procedures that do not have a specific preparation method number, use "Gen Prep".	Text	25	Yes

* For radiochemistry only samples format Date as MM/DD/YYYY (where MM= two digit month, DD = two digit day, and YYYY = four digit year).

For all other samples format Date and Time as MM/DD/YYYY hh:mm (where MM = two digit month, DD = two digit day, YYYY = four digit year, hh = hour in 24 hour format, and mm = minutes).

Contact: Rebecca Humphrey at 716-684-8060 or rhumphrey@ene.com .

Sample Receipt File

Valid Values:

MatrixID

Standard Value	Standard Value Description
AIR	Air
AQ	Water
ASH	Ash
BIOTA	Biological matter
FILTER	Filter
LIQUID	Identifiable non-aqeous liquid.
OIL	Oil
SED	Sediment
SLUDGE	Sludge
SO	Soil
SOLID	Identifiable non-soil solid, or unidentifiable solid
TISSUE	Tissue
WASTE	Waste
WIPE	Wipe

LabID
Contact Rebecca Humphrey

ProjectNumber
Refer to ADR project library or Contact Rebecca Humphrey

ProjectName
Refer to ADR project library or Contact Rebecca Humphrey

LabAnalysisRefMethodID
Refer to ADR project library or Contact Rebecca Humphrey

PreparationType

Standard Value	Standard Value Description
3005A	Acid Digestion of Waters for Total Recoverable or Dissolved Metals by FLAA or ICP
3010A	Acid Digestion of Aqueous Samples and Extracts for Total Metals by FLAA or ICP
3015	Microwave Assisted Acid Digestion of Aqueous Samples and Extracts
3020A	Acid Digestion of Aqueous Samples and Extracts for Total Metals by GFAA
3031	Acid Digestion of Oils for Metals Analysis by AA or ICP
3050B	Acid Digestion of Sediments, Sludges, and Soils
3051	Microwave Assisted Acid Digestion of Sediments, Sludges, Soils and Oils
3052	Microwave Assisted Acid Digestion of Siliceous and Organically Based Matrices
3060A	Alkaline Digestion for Hexavalent Chromium
3510B	Separatory Funnel Liquid-Liquid Extraction
3510C	Separatory Funnel Liquid-Liquid Extraction
3520C	Continuous Liquid-Liquid Extraction
3535	Solid Phase Extraction
3540C	Soxhlet Extraction
3541	Automated Soxhlet Extraction
3545	Pressurized Fluid Extraction

Sample Receipt File

Standard Value	Standard Value Description
3550B	Ultrasonic Extraction
3560	Supercritical Fluid Extraction of Total Recoverable Petroleum Hydrocarbons
5030B	Purge and Trap for Aqueous Samples
5035	Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples
7470A	Acid digestion of waters for Mercury analysis
7471A	Acid digestion of soils and solids for Mercury analysis
8015B	Shake out
8151A	8151A
8330	Extraction and cleanup for Method 8330
9045	Preparation of soils for pH measurement
9056	Preparation of soils and waters for Method 9056
Gen Prep	Generic preparation type when a preparation method ID does not exist (used mostly for general chemistry methods)

Attachment C

Community Air Monitoring Plan
Former Adirondack Steel Site
Colonie, New York

The air monitoring program for this site consists of real-time monitoring for particulate matter at the upwind and downwind perimeter of each designated work area during all ground-intrusive activities (excavation) where surface soils are disturbed and/or subsurface soils are brought to the surface. The purpose of this program is to provide a measure of protection for the downwind community and receptors from potential airborne contaminant releases as a direct result of remedial work activities. This program is also designed to confirm that remedial work activities did not spread contamination away from the site through the air. All site personnel must be prepared to respond and act quickly in the event of an emergency or accidental contaminant release. Emergency preparedness and response procedures will aid in protecting site workers and the surrounding environment. Preplanning measures will include employee training and safe work practices to avoid personal injury or exposure.

All air particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter smaller than 10 micrometers in size (designated as PM_{10}), over a period of 15 minutes and have an audible alarm to signal an event where an established action level is exceeded. Particulate matter shall be monitored at the upwind and downwind perimeter of the work area on a periodic basis during the intrusive activities mentioned above. If downwind PM_{10} concentrations exceed 100 micrograms per cubic meter ($\mu g/m^3$) above the upwind perimeter of the exclusion zone (background) for a 15-minute period, then dust suppression techniques outlined in the Particulate Emission Response Plan below must be used to minimize the potential for particulate migration.

Particulate monitoring data will be recorded and available for NYSDEC personnel to review.

Particulate Emission Response Plan

- If the ambient air concentration of particulate matter exceeds 100 $\mu g/m^3$ above background at the perimeter of the work area for a 15-minute period, dust suppression techniques will be implemented to minimize the potential for particulate migration.

- If the downwind PM_{10} levels are greater than 100 $\mu g/m^3$ over background but less than 150 $\mu g/m^3$ over background at the perimeter of the work area, work activities may continue provided the PM_{10} concentrations remain below the 150 $\mu g/m^3$ threshold and no airborne dust is observed leaving the work area.

- If the downwind PM_{10} levels are above 150 $\mu g/m^3$ at the perimeter of the work area or if airborne dust is observed leaving the work area, all work activities must stop. When work shutdown occurs, work activities and dust suppression techniques will be

re-evaluated in an effort to minimize the potential for particulate migration. Work may resume once additional or renewed dust suppression measures or controls are successful in reducing downwind PM_{10} concentrations remain below the 150 $\mu g/m^3$ threshold.

Potential Dust Suppression Techniques

- Sufficient wetting of particulate source areas with clean potable water using a water tank truck.